

















BY THE SAME AUTHOR

A HISTORY OF MODERN EDUCATION

An account of educational opinion and practice from
the revival of learning to the present decade.

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IN PRESS

A HISTORY OF MEDIÆVAL EDUCATION

THE HISTORY OF ANCIENT EDUCATION

AN ACCOUNT OF THE

COURSE OF EDUCATIONAL OPINION AND PRACTICE FROM
THE EARLIEST PERIODS OF WHICH WE HAVE RELIABLE
RECORDS TO THE REVIVAL OF LEARNING

BY

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PREFACE

This book grew out of the lectures given by the author in Cornell University, and comprises the first half of his course on the history of education.

It is believed that it will meet with the same favor so generously accorded to his History of Modern Education.



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ANCIENT EDUCATION



THE HISTORY OF EDUCATION

INTRODUCTION

I propose to discuss the history of educational efforts and educational ideas among those peoples with which our own progress is most intimately connected, from the earliest periods of which we have any reliable records, down to the times in which we ourselves are actors. This is a most interesting and suggestive branch of historic study, since it not only reveals to us the efforts of the historic races at various epochs to fit their offspring to fill successfully the places they were destined in the course of nature to occupy in society and in the State, but also brings us into the most vital contact with the controlling *ideas* of these races,—with their ideals of life and conduct, with their views of human progress, human perfection, and human destiny.

This discussion has then, merely to consider to what ends, by what means, through what agencies, and with material appliances and organizations, various peoples have striven to train the young for their future destination, and what have been the results of these efforts, as disclosed in the character, the career, and the fate of nations; it will also demand that we analyze and weigh the opinions that have been expressed during the ages by the world's wisest and best men, as to the

ideas that should control, the aims that should be proposed, and the means that should be used in the education of youth, which they have all considered a supreme object of human interest.

A thoughtful review of educational efforts should be replete to us with warning and with instruction;—with warning against the renewal of experiments which experience has shown to be ineffective or even hurtful, and with instruction in regard both to the *aims* which should always consciously inspire the efforts of the educator, and the *spirit* in which he should use the means, transmitted by the past or afforded by the present, in training the young for a higher destiny than their fathers have attained.

So also an intelligent comparison of the views of the philosophic theorists of education may enable us to detect their fundamental points of agreement, amidst many apparent divergences in matters of detail; to discover what among their opinions were the result of peculiar views of life or of special social and political relations, and so were in their very nature temporary and transient; and what, on the other hand, have reference to universal man, whatever may be his circumstances, and hence are likely to be as permanent as human nature itself. We may thus be enabled to approximate by a historic road to a science of education,—to what may indeed be termed a philosophy of educational ideas and processes.

For the science of education is in a very real sense a historic science. It is the expression of the harmony that man has attained with his physical, social, and spiritual environment, and its history is the depiction

of man's ever-renewed and progressive efforts after harmony with this three-fold environment. Only through a knowledge of these efforts and of their inspiring ideas shall we be in a condition to appreciate fully our present stage of human elevation in all these respects, to understand by what means and through what vicissitudes this stand-point has been reached, and to judge more intelligently along what lines our future struggles towards the perfection of our nature should be made.

It is obvious that man's earliest efforts to adjust himself to his environment must take the direction of what Herbert Spencer calls direct or indirect self-preservation. He must learn to conform his actions to the most obtrusive physical forces and laws; to avail himself of the material resources of surrounding nature; to bring some rude kind of mutuality into his relations with his fellow men. These earliest efforts, renewed through long ages, and marked by brutal struggles and rude but progressive inventions, naturally could leave no trace on the pages of history, for they were the efforts of unlettered barbarians.

We may, however, be sure that whatever progress was slowly made, whether physical or social, was carefully transmitted to the young of the race by word of mouth and by early training. This was the primitive form of education, and is the form which still prevails amongst savage tribes. The youth are trained to practise the arts which their parents know, to continue their friendships and alliances, and to cherish their resentments. Thus when history begins to emerge from the mists of fable and tradition, a great advance

has already been made in physical and social adjustments, accompanied by some dim recognition of the fact that man has himself a worth apart from his surroundings,—that indeed his spiritual nature imparts a higher meaning, if not to his physical at least to his social relations.

History has naturally given its chief attention to man's struggles to adapt himself to social conditions and exigencies. It is a record of wars that were waged and of alliances that were formed or dissolved, of the changes wrought in societies and races by the agency of masterful spirits, of the rise and decline of States, of dynasties, and of policies,—all facts in the social order,—through which we catch only occasional and, as it were, chance glimpses of man's slowly-increasing dominion over physical nature, and of the struggles of his spiritual being for a fuller expression and a nobler life. It is only within the latest generations that science has, by its rapid development, forced history to record the brilliant story of man's swift conquests of physical nature by obedience to her deeper laws, and of his successful repetition of efforts, often before made, to raise himself nearer to the full perfection of his nature.

In all man's earlier efforts, mostly in a blind fashion, after a completer harmony with his physical and social environment, and in his blinder gropings after some expansion of his spiritual nature, the education that has been given to the young has played a most important part, but one too often well-nigh unnoted. We shall see in the course of our inquiry that the Chinese, the Egyptians, the Hebrews, and the Greeks earliest

exhibit some consciousness of the great truth on which the modern nations are but recently beginning to act, that whatever you desire to make greatly influential in a nation's life, you must first incorporate in the education of a nation's youth. So important is this truth, that in the words of Leibnitz, "Change the system of education and you will change the face of the world."

In the progress of our discussion, we shall have occasion to see the influence of great *Ideas* in shaping the world's progress; that what to-day exists only in idea may to-morrow be translated into fact, though that to-morrow may be ages distant; that new and fruitful ideas, originate from the world's wisest and greatest men; and hence, that social and individual progress, with its correlative educational progress, is a progress that always receives its impulse from above, from the men of ideas, and works thence downwards until it penetrates the whole relatively unintelligent and unprogressive mass below.

Man's ideas as to which the deepest essence of his nature is, and what are its most vital relations to the facts of its environment, have always profoundly modified the character of the education which at any time has been given to the young; and necessarily so, since that education has been designed to fit the young for existing—chiefly social—conditions and requirements. Hence, in the words of Karl Schmidt, "Since what man thinks, feels, and wills he desires to realize outside of himself, being yet limited in this realization to what he himself is and possesses, he can and will educate the rising generation according to no other

principles and to no other end than that which he considers the highest."

From this difference of ideas, therefore, which have prevailed at different periods as to man's relations to what he deems highest, have arisen the several systems of education which have prevailed, with their modifications in form adapting them to the special genius of different societies.

Thus the Oriental peoples and the nations of classical antiquity, viewing man's relations to the State as the highest, have originated various forms of what Rosenkranz terms National Education, fitting the young for their relation to that special ideal of the State which each people had conceived.

The Hebrew nation, more truly, conceiving man's immediate relation to his Creator as the highest, educated for a State in which the revealed will of God was the supreme law of life; but in which man's individual importance, and thus his feeling of self-judging responsibility, was apt to be dwarfed by that awful Presence. This was the type of Theocratic Education.

Finally, the revelation of God in Christ Jesus, perfect man and Divine nature incarnate, has gradually brought the nations of Christendom to a realization of the infinite worth of individual man; and of his manifold relations to nature and his fellow man, to society and the State, as a *preparative* to that highest relation to his Creator, in whom all these relations converge and gain their deepest significance. Thus has been developed in the progress of the Christian centuries the Humanitarian ideal of education.

In this point of view, the history of education may,

I think, lead us to realize more fully the weighty responsibility which this ideal of education in its latest and most complete form imposes upon the educator of the present and the future. He must, in the words of Kant, train the young for a future somewhat higher condition of humanity than any that our race has yet attained; or in the idea of Herbart, he must represent the wants of the future man in the training of the children.

He must indeed prepare them for the duty of self-preservation in the widest meaning of the term, by such understanding of the laws of the universe and of the means by which man may make them helpful to his purposes, that in the industrial society of the future they may become efficient helpers, and not dead-weights or clogs. He must also fit them for the proper performance of their duties as parents in the limited circle of future families, and their duties as citizens in the complicated relations of social and political life; but above all, he must aid them to attain their completest stature as beings intellectual and moral, as men self-poised and self-directing, estimating all things according to the truest standards of relative worth and acting in accordance with such estimates,—men really *free* because the intelligent love of the true and right has made them free.

As may probably have been inferred from what has already been said, the relations of education to civilization are exceedingly intimate. Indeed they so act and react upon each other that it would be difficult to decide which is effect and which cause,—whether education is parent or offspring of civilization. This much

seems certain, that the education of a people, at first taking form and color from its dominant ideas, deepens and perpetuates the effects of those ideas—as witness the Chinese,—and ends by controlling in large measure the development of its civilization. Likewise, the only effective means to *change* the current of an ancient and perverse national life, is to begin with a corresponding reformation of the training of the rising generation,—as witness in recent years the Japanese, who desiring to put themselves in line with the civilization of the West, have begun by reshaping their educational means and methods.

An even more striking example of analogous character is presented by Germany. Fichte was wise in his appeal to the German people at their lowest stage of political depression early in the present century, in pointing them to “the education of the nation”, to “the training to a *wholly new and general* national consciousness,” as their only means of rescue from their forlorn condition, and of entering on a new and brighter national career. It is needful only to allude to the brilliant results, which, within the memory of men still living, have attended the adoption of the policy that Fichte outlined. A Germany which, from “a new and general national consciousness”, has substituted union in place of provincial isolation,—a renovated Germany in which the uplifting power of education is compelled to reach the very humblest of her citizens, and all that pertains to education is the affair of her very wisest and most experienced minds,—is to-day the most powerful nation on earth; her heel has been upon the neck of her former oppressor;

her industries and commerce are stretching forth eager hands to grasp the remote regions of the earth; and, better than all else, her schools and her system of general education have served as models to all progressive nations, while revealing to them the open secret of all swift advance in civilization.

It seems obvious therefore that no history of civilization which fails to take due account of the educational ideas, appliances, and methods of nations at the various stages of their progress, can claim to give more than a partial and maimed account of their development; whilst a history of education will be equally incomplete which does not, at every epoch, carefully adjust its point of view to the stage of national progress in civilization as measured by the development, both of society as a whole, and of the individuals of which society is made up. For, as the etymology of the word may serve to suggest, civilization is a progress both of the *civitas*—the State—towards the perfection of social relations and arrangements, and of the individual *civis*—the citizen—towards the perfection of his nature, his faculties and sentiments, his ideas and character. We may safely adopt therefore Guizot's acute statement that the two facts that constitute civilization are social progress and the progress of humanity, that is of the great body of individual citizens.

Of these two facts it seems obvious that the fact of individual progress in well-being, of individual advancement towards perfection, is that which is most significant,—that indeed it is the one which conditions the other and renders it possible; but this progress, this

advancement, is the fruit of education in the deepest and best sense of that vaguely-used term. It is equally obvious that the depth and validity of any civilization can be truly estimated only by the thoroughness with which all social ameliorations and humanitarian developments reach and penetrate the masses of the community.

A civilization may easily be very brilliant and yet exceedingly superficial. It may exhibit a high degree of perfection of social arrangements, the benefits of which reach but a very limited class; it may be adorned by many individual examples of refinement and elevation of sentiment and of nobility of character; it may be made illustrious by a brilliant and enduring literature; and yet beneath this shining exterior may seethe a vast mass of popular ignorance, superstition, and semi-barbarism. The thoughtful student of history will unhappily have but too little difficulty in finding examples to fit this picture, and he will find also doubtless that the benefits of such a civilization are limited to the class to which are opened the advantages of the best education at that time attainable.

When we consider also that great men are likely to arise, and new ideas of far-reaching consequence to originate in the bosom of a highly progressive society, one in which the young are most generally trained in the best wisdom of their times, and the germs of genius find a kindly soil,—we shall be ready to admit that education is the most influential factor in an advancing civilization, that its history is in a large sense the history of human progress, and that the extension

of its blessings is the only sure means to promote the development of society and of humanity.

This important question of the close relation of education to civilization, may profitably be observed also from another point of view. The prevalence of crime and pauperism and the frequently wretched condition of the laboring classes, are generally conceded to be material blemishes on our most enlightened modern States. If then it should appear, as seems now highly probable, that crime and pauperism are limited to those practically illiterate, in a degree enormously disproportioned to their relative numbers; and that every extension of the benefits of sound education is attended by a diminution of crime and of the most hopeless forms of wretchedness, and by an amelioration of the condition of laborers, it would afford an additional and most weighty evidence of the vital connection of education with individual and social progress, the two great facts of civilization.

Apart from any investigation of the facts, indeed, it would seem intrinsically probable; that a man of fair education would be likely as a *laborer* to be more efficient and valuable than one wholly or practically illiterate; and that as a *man* he would be more likely to be self-respecting and regardful of the rights of others, from an enlightened self-interest if for no better reason, and thus less liable to fall into the ranks of criminals, or to sink into the slough of pauperism. Some recent inquiries in this direction, and collations of statistics as well as the results of reformatory education tend to confirm, so far as they extend, our *a*

priori expectations,* and afford striking testimony of the efficiency of right education in diminishing the worst evils of modern civilized society. Hence we shall hardly be deemed rash, in assuming that right education is the most weighty influence in promoting human progress and civilization, and in carrying with us this guiding thought in our studies of the history of education. It will doubtless inspire us to look deeper into the inner significance of educational efforts, to form a clearer judgment of their tendencies, and to weigh more wisely the value of educational theories.

Bearing ever in mind therefore as a regulative principle the truth that education in its form and spirit is the embodiment of certain controlling ideas, and in its results is indissolubly linked with the development of national civilizations, we shall study first its history in some of the most noted societies of the Orient, where it was moulded on varying ideals of the relation of man to the State. We shall note the development of theocratic idea among the Hebrews, and its persistence during ages of exile, of dispersion, and of oppression. We shall see the educational efforts and theories of Greece and Rome, controlled and shaped by the idea of man as citizen; and shall observe also the germination of the university idea with the great Athenian philosophers, its extension to Alexandria and other centres of

* Report of Commissioner of Education, 1893-4, p. xx: 1898-9, pp. 1249-1343.

Circulars of Information, U. S. Bureau of Education, 4-1872; 3-1879; 2-1881.

Ibid, Education and Crime 1881. Barnard's American Journal of Education, iii. 667; vi. 311. School Review, iv. 59.

It would be easy largely to increase these references.

enlightenment, and its planting at Rome in the later ages of the imperial power. We shall face the early efforts at Christian education, cut off deliberately from the stores of wisdom accumulated by pagan antiquity, aiming solely at preparing men for another world, finding refuge in monasteries and cathedrals from the disorders of most chaotic ages, and degenerating naturally into a blind and narrowing submission to mere authority in matters not only intellectual and spiritual, but also of observable fact.

We shall in the twelfth century, witness the brilliant rise of great European universities, and their early subjection to the fetters of an empty but subtle scholasticism. We shall see the dawn of that revival of learning whose blessings we now share, ushered in by a recurrence to the rich but long-neglected treasures of heathen literature, and attended by the invention of the art of printing—art truly preservative of all others,—and by the emancipation of the human mind from the bonds of tradition as well in education as in religion.

Who could now pretend to outline in the compass of a sentence the successive steps of that vast later progress, or even to hint at the services of the great organizers, the wise educators, the great teaching congregations, and the illustrious writers on education, who have made the educational annals of the past few centuries the brightest pages of its history? Suffices to say that their controlling idea has been with ever-increasing consciousness humanitarian, and that their aim has been and is to sound the very depths of human

society, and to reach the most hidden springs of man's nature.

It is self-evident that such a study should be of absorbing interest. To it therefore let us address ourselves in the succeeding pages.

PART I. ANCIENT EDUCATION

CHAPTER I

*ORIENTAL EDUCATION—CHINA AND JAPAN

Oriental civilization and its correlative education have, with few exceptions, been characterized by a spirit of conservatism whose tendency has been to cause all things to settle into fixed customs, unchanging ceremonies, and in some cases into narrowly limited castes. Among Oriental peoples generally the idea of man as a free, self-determining personality has not been recognized, and hence the surest foundation for the feeling of moral responsibility has been wanting.

The aim of education has therefore been the inculcation of maxims and formulas, and habituation to the customs of types of external conduct in which the popular life was bound up. Man was trained to obliterate originality, to shun independent initiative, and to recoil from any outward act that would bespeak a self-centered volition. Hence we find in public life unreflecting subordination to recognized authority; and in education, unchangeable transmission of social and religious maxims which rarely pass from memory

* The materials for this and the two succeeding chapters have to a great extent been selected, condensed, and arranged to suit my purpose from the 4th edition of Schmidt's *Geschichte der Pädagogik*, to which have been added materials derived from all other available sources of information, most of which however have been ransacked by the industrious editors of the work just mentioned.

into the realm of feeling, and mere mechanical rote-learning of formulas and prayers which a priestly class, embodying all knowledge and spiritual cultivation, has prescribed.

The comparative feebleness of physical organization in most oriental peoples dissuades from all avoidable activity, and the low development of some of the feelings which act as goads even to sluggish bodies, affords little stimulus to enterprise; so that, unless brought into active contact with other races, orientals are apt to sink into a state of unprogressive quietude, in which "education aims merely to retain the stage of culture that has been gained, but not to go beyond it." The individual is not to be resultant of his own self-determined and imperiously creative intelligence, but the creature of external circumstances, of birth, of fortune, of social customs, which he feels no promptings to fashion to independent personal ends.

In such societies, it is obvious that there can be no question of humanitarian education, of an education that shall put every individual into full and conscious possession of all his powers and capabilities, and shall impel him to the attainment of every possibility of his nature. Such a type of education would be entirely out of harmony with oriental ideas. Hence all the systems of education that have arisen among them,—and some of them as we shall see have been of enduring influence,—have, with the single exception of that of the Hebrews, been of that type which has generically been termed national, while assuming specific forms which were adapted to the special ideas of the several races.

Two of these systems, one typically passive, the others active in character, have for us a special interest from their enormous antiquity, and from the permanent influence they have exerted,—in the one case on the most populous country of the globe, and in the other extending to the most progressive modern nations. Chinese and Egyptian civilizations, so far as we can trust the evidence of their monuments and their annals, were already old, before Æneas sailed from the shores of ruined Troy, before Greece had emerged from the darkness of primitive barbarism, before Romulus had laid on the banks of the Tiber the feeble foundations of a city which should later rule the world; and Egypt, after a national existence of abundantly more than thirty centuries, had lost its political importance long before Rome had reached the zenith of its power.

Japan will claim our attention from its connection with China in educational subjects and methods, and from its singularly rapid progress within the last quarter of a century; the education of India, of the Phœnician peoples, and of early Persia, presents several points of interest; and it needs hardly be said that Hebrew education is of great importance to all Christian peoples.

China

The character of the Chinese, while similar in general to that of other orientals, exhibits traits which have doubtless been deepened by the education of a hundred successive generations. Quick of observation and strong of memory, they yet show a striking lack of ideality and of inferential reason. Their feelings

are somewhat weak, yet they are persistent on a low key. They are polite, docile, and deferential; but all this is outward and intellectual, having little if any reference to the feelings,—the result of ingrained habituation rather than of principle. From the peculiarity of their intellectual constitution, their science is a mere collection of observations and maxims, without inferences save in the domain of outward conduct; and their discoveries and inventions, of which they have early hit upon several, e. g., gun-powder, the directive property of the magnet, and the art of printing from engraved blocks, have never been carried out to perfection nor to their most obvious practical consequences.

During the entire course of their history, their most prominent characteristic, their dominant national *idea* has been that of reverence for parents and ancestors and obedience to their authority. Five centuries before the Christian era, Confucius, who professedly based his teachings on those of the ancients, derives all duties from the duties of the child to his parents. He says “Filial love is the root of all virtues, and from it grows all morality. He who fulfils his duties to his parent, will in a higher station be free from pride, in a lower will be free from insubordination, and among his equals will not show himself contentious.”

This idea has not only led to the worship of ancestors, who were believed to be guardian spirits of their descendants, granting them aid and protection in times of need, and sharing their honors and their fame; but has controlled the entire organization of the Chinese government, and has given form and character to the

system of education. The government, which is carefully articulated and extends its influence to every part of life, is based on the ancestral idea, and depends rather on tradition than on regular legislation. The state is nothing other than the family developed to a national extent: it is a great family of the people with the emperor as father of all, and in a very true sense, also the teacher of all his people; for on set occasions he visits in state certain of the schools, and besides other things, in presence of the pupils he ministers with his own august hands to the wants of the aged, thus by his own powerful example emphasizing to his subjects the importance of this prime doctrine of Chinese faith. Hence their system of education, directed though it is to the purposes of the state, has the family or ancestral character, and has been designated by Rosenkranz as the passive family type of a national system.

It would be a mistake to suppose that the masses of China are sunk in ignorance. On the contrary they are in general possessed of a certain measure of education which they value quite as highly as any other race.* A ready proof of this may be seen in the representatives of these lowest masses that are to be found in most considerable centres of population. This education has its limits beyond which the nation has never advanced: limits which depend in part on the character of the race, in part on their prolonged isolation from other peoples, and in part no doubt on the nature of their written language, which by making heavy demands on the memory leaves little force to be ad-

* Dr. Williams in "The Middle Kingdom", C.ix. expresses the opinion that the extent of elementary education in China has been much overrated.

dressed to the development of other powers. From these and possibly other causes, "education and instruction has never gone beyond the impression of received ideas, an ordering of the outer behavior, an inculcation of prescribed ceremonies, and the acquisition of learning for the purpose of outward prosperity and external honor."*

It would also be equally a mistake to suppose that the reproach of complete mental stagnation through countless generations, so often urged against China, is wholly deserved. The art of printing from engraved blocks which became diffused in China as early at least as the 13th century, is said to have caused an appreciable advance in science; and in later ages the contact with Arabians and East Indians, as in earlier times the influx of Buddhism from India, has caused a sufficient development of spirit to relieve the Chinese from the stigma of entire spiritual immobility.

Yet that which is ancestral and has been transmitted from antiquity, is still far the most prominent part, whether in culture, or in customs, or in education. Even in their high estimate of education, and in their marked reverence for the teacher's office, the Chinese are guided by ancestral authority. Their earliest book, the *Shuking*, which claims to have originated as early as 2300 B. C., says of education: "The thoughts must be directed to study from the beginning to the end; if one has the highest maxims in his reach, but does not study them, he knows not their worth. Hence when we study we begin first to know our insufficiency, and when we teach we first recognize our

* Schmidt.

own limitations." So too in a treatise of theirs which is not later than the first Christian century we find this:—"If a wise man desires to reform his people and perfect their customs, he must promote education. Therefore the wise kings of ancient days, in founding kingdoms, and in the guidance of their people, cared first of all for their instruction and study." The importance of education could hardly be expressed in words more emphatic than those of this ancient Chinese author, since by implication an omnipotent power is ascribed to it in shaping national manners and in influencing national life.

Again, it was an ancient Chinese maxim that "one must honor through his whole life him whom he had once had for a teacher;" nor was the observance of this maxim left to individual caprice; for the ceremonial of reverence with which the teacher should on various occasions be met, and the respectful offering which should at stated times be made to him, were carefully prescribed. Even the revered name of Confucius means Kong the Teacher.

The subject matter of Chinese education, is, and always has been, wholly ancestral in its character,—a legacy from an unknown antiquity. Its bases are reading and writing, and a minute ceremonial etiquette which extends to every relation of life; to which are added the art of reckoning, some elementary notions of geometry, music, and dancing, and some gymnastic exercises intended to prepare for warlike duties. Some of the Chinese writings ascribe to music a potency in education quite analogous to that which was claimed for it by the great Athenian philosophers.

To understand the full significance of reading and writing as elements of Chinese education, we need to consider the nature of their written language. It is chiefly ideographic, that is made up of characters representing ideas, to which is added a number of phonetic signs, forming a highly complex series of characters, many thousands in number, but which it is estimated may be reduced to about 2425 more or less distinct symbols. The mastery of these in reading and writing, like the mastery of an equivalent alphabet, requires years of effort, and implies great and discriminate use of the observing powers and an enormous tax upon mere adhesive memory.

Nor was the *manner* in which these characters were taught calculated to diminish in the least the difficulty of the task. It consisted in first a mere memoriter impression of the symbols by observation and copying, without any clear idea of their import, to which succeeded the mastery of their meaning, and last of all an exposition of the contents of the book. To the mastery of the written characters, succeeded with the more advanced pupils the study of the Chinese classics, the five books compiled and arranged by Confucius from ancient sources, and the four written by him or his immediate disciples; added to which was the practice of composition on a highly artificial model, leading to the several State examinations.

The numeral system of the Chinese is somewhat complicated; but the art of reckoning was and is greatly facilitated by the use of a species of abacus which was early devised by them, and it was practised with boys until they became sufficiently expert for all

the purposes of life. The teaching of etiquette and the inculcation of the maxims of morals, duties, and conduct, was early begun at home, and was carried by precept and practice through all the stages of school life, making indeed a part of the examinations of the State. Literary education was confined almost entirely to boys, girls being trained usually merely in household duties and in the customs and etiquette suited to their station.*

For the mass of the people, school education ended at about the age of fifteen. For the sons of the wealthy, and for those whose ambition prompted them to strive for higher attainments, the subjects were the same as have been already named, but were pursued to a far higher degree of mastery in several grades of higher schools, passage from lower to higher in these being dependent on rigid examinations.

For these schools there was ample encouragement, for that way led to promotion and to the highest honors of the state. The state supports no schools, leaving this solely to private initiative, but it sets examinations; and to those who exhibit the highest proficiency in these, and to no others in theory at least, are opened all the highest as well as lowest offices of the state. In this way, although the examinations are wholly literary and ceremonial, not only has the State usually been well served in all administrative offices by its most energetic and intelligent citizens, those best versed in its ideas and purposes; but so powerful a stimulus has been given to general education, that it

* Dr. Williams in C. ix, Middle Kingdom, gives a much more favorable view of female education at present.

is said few places can be found in China so poor as not to have schools of at least an elementary character. For these schools, teachers are never wanting; for but a small proportion of those who enter the higher state examinations can succeed; and from the ranks of those who fail, are recruited the numbers of those who enter upon the laborious and poorly paid but highly honored vocation of elementary schoolmasters.

Such is a brief sketch of education as it has long existed in China; its *aims*, not mental development and originality, but uniformity in transmitting the ideas, the customs, and the usages of the ancients, with persistent limitation to these; its *subjects*, chiefly literary and ceremonial, acquaintance with native classics, skill and dexterity in style, and readiness in the complicated ceremonial of social and political life; its *method*, not developing but dogmatic and authoritative, demanding from the pupil no free play of thought, but merely docile receptivity, memoriter learning, exact imitation, patient repetition, and careful practice; its *effects* on character, men exactly and formally polite, unvarying in routine, skilful within narrow limits, imitative but not inventive, materialists in belief, indifferent to all higher motives and aspirations.

The history of any race, and in a special sense the history of its education, would be very incomplete if it took no account of the moral and religious ideas of the race; for such ideas have always and everywhere been the most powerful motive-forces known to men. We have already seen how deeply the Chinese idea of filial reverence, in the form of a worship of ancestors and sedulous transmission of ances-

tral ideas and usages, entered into all parts of Chinese life, and how completely it pervaded Chinese education. Let us now briefly glance at the men who collected, organized, and inspired through their own personality, the religious and philosophic ideas derived from a more remote antiquity; and who gave them the form in which, for nearly twenty-five centuries, they have been influential in every sphere of Chinese activity.

In the 6th century before Christ, appeared two men who were an honor not more to China than to humanity,—Lao-tse, born 604 B. C., and Kong-fu-tse, 550 B. C., known to western nations as Confucius. Lao-tse was a great transcendental philosopher and expounder of religious ideas. Basing his system on the idea of one perfect, eternal, omnipresent, and Creative Being, whom he called Tao, who sways all things, and expresses himself in nature and in man, Lao-tse taught that a noble and unselfish morality is the only service acceptable to this unsearchable Being; that man's highest duty is to strive to harmonize his own nature with the Divine nature; and that to accomplish this, he must free himself from the dominion of passions, and "must strive that his purer spiritual self, his *reason* and *will*, may so dominate the ignoble and less pure, that his nature may become an united, harmonious, and inseparable whole."

It is obvious that Lao-tse had clearly grasped the idea of freedom of the will and of human perfectibility, not only as objects attainable by all human beings through earnest efforts, but also as the supreme duty of every man to struggle to attain. These ideas, which would have wrought a complete revolution in

Chinese education, were too elevated and too little in unison with the spirit of Chinese life ever to find a complete acceptance among his countrymen; yet in later times, mingled with gross superstitions which Lao-tse would have been the first to repudiate, and with Buddhistic ideas more nearly akin to themselves, they gave rise to Tao-ism, which has always had many adherents in China, and has doubtless exerted no inconsiderable influence on Chinese pedagogy. Indeed it would seem that any future efforts to reform the educational systems of that country would find their most promising starting-point in the doctrines of this indigenous sage, enlisting thus in the work of change the instinctive Chinese reverence for ancestral authority.

A far greater and more pervasive influence has been thus far exerted on all the currents of Chinese life by Lao-tse's younger contemporary, Confucius. He early distinguished himself by his learning, his wisdom, his skill in administering his native province, and his efforts to rehabilitate many of the ancient customs which had fallen into neglect. He paid a visit to the aged Lao-tse, and received from him advice, which, however deeply it impressed him, as witnessed by his eulogiums to his disciples, evidently wrought no change in his settled convictions. Deprived of his offices through the machinations of his enemies, at the age of fifty-six he entered on mis-



CONFUCIUS, 550-478 B. C.

sionary journeys, in which, amid indifference, persecution, and even imprisonment, for thirteen years he taught and preached the return of the people of China to their ancient customs. He died 478 B. C., at the age of seventy-three.

After his death his great merits were fully recognized; temples were erected in his honor, in conformity with the Chinese custom of ancestral worship; and stated offerings were presented at his shrines in school-rooms as well as temples, as to the great philosopher, teacher, and complete master. His descendants are said now to constitute the only hereditary nobility in China, aside from the imperial family.

If Lao-tse was a great philosopher and religious idealist, so was Confucius a conservative reformer and *practical* philosopher, materialistic rather than spiritualistic in all his ideas. He recognized and conformed to the ancient ideas and customs; considered the universe as eternal, and nature as governed by the rigid necessity of initial laws; and taught that wisdom consists in the strict performance of one's duties, and in the cultivation of corresponding feelings. He collected and arranged in five books the ancient science, customs, and religious observations, which he explained and inspired, having always in view practical life in the state, and the employment of the individual in the great *whole* which he believed to be interpenetrated by the Divine spirit. Thus complete serviceableness in the body politic becomes as near a religious service as Confucius seems to recognize and the national idea in Chinese culture becomes prominent.

Human duties he founds on the ancient Chinese

scheme, viz., duties to parents, to rulers, to consorts, to elder brothers and to friends, deriving all these, as has before been mentioned, from the duties of children to parents. He recognizes also as fundamental virtues, "universal charity, pure sincerity, impartial justice, rectitude of heart and mind, or wisdom, and conformity to established customs and usages." His effort in all his teachings was to maintain intact the ancient customs and worship, while harmonizing them with what he considered the results of his own investigations in a practical philosophy of life.

Hence I have called him a conservative reformer. Through these services, and through the writings of himself and his immediate disciples, especially Mencius, which form the remaining four of the great Chinese classics, he became the founder of a new and important epoch in Chinese science, literature, and ethics; and, since he believed that all virtues might be inculcated by a consistent discipline, he has exerted a weighty influence on Chinese education.

That this influence has been on the whole salutary it would be difficult either to affirm or to deny,—so much depends in questions like this on a due consideration of the special genius of a people, and what man of European stock and culture can feel sure that he fully enters into the spirit of this oriental race? It can hardly be doubted that only by reason of its general harmony with the innate tendencies of the Mongolian race has it come to pass that Confucianism, as an intellectual religion and system of practical ethics, has so long been widely influential in China and Japan, and has been the system to which the mass of the lit-

erati in both these countries has most largely adhered.

China can also boast a theorist of education of surprising enlightenment of view in Tschu-Li, born 1129 A. D., who was called "Prince of Knowledge", on account of his sagacity and many-sided learning. He wrote a pedagogic treatise entitled the "Little School" from which I transcribe a remarkable extract. "The art of education consists in this,—early to bring into subjection the desires of youth, to *condescend to their powers of comprehension*, to demand from them nothing but what they can do without fatigue, and to place before their eyes only examples of morality and virtue. These four demands contain all that is vital for the education of youth."* In this passage, while the first demand breathes the spirit of Lao-tse, we seem to hear in them all the voice of Comenius or of Herbart and his followers.

As regards method also Tschu-Li manifests the spirit of modern pedagogy rather than anything distinctively Chinese; insomuch that were the ideas of this Chinese treatise adopted in China, they would revolutionize the entire method and spirit of education. When we consider that at the very time when this treatise was written, Europe was just beginning to emerge from the thick gloom of the Dark Ages, and was laying the foundations of its earliest universities, and that it had still to endure four centuries of scholasticism and of gropings after something better, before the springing up of those wiser pedagogic views with which these so remarkably harmonize,—we shall doubtless find this 12th century Chinese treatise sufficiently remarkable.

* Schmidt, *Gesch. der Pädagogik*, i. 60.

Japan

Although the people of Japan are very distinct from those of China in their early history as well as in their spoken language, yet the strong influence which Chinese ideas and literature have exerted on their modes of education, renders it possible to despatch their pedagogic history with but little detail.

Little is known of the condition of education in Japan up to 270 A. D., when the written language of China and the Confucian classics were introduced into the country, followed about three centuries later by Buddhism.* Since that time education has generally been encouraged by the government, though the universality of its extension was at some times materially deranged, during the supremacy over the mikado of the warrior nobility with the tycoon at their head.

The revolution of 1868, which restored the mikado to real supremacy, was an educational not less than a political one, and has largely thrown Japanese education into the current of European and American ideas. Hence we see Japanese youth resorting to our schools that they may bear back to their native land the fruits of Western learning. These young men are usually of the highest class, either intellectually or socially; yet we are assured by those conversant with the facts, that as a race the Japanese are of full average intellectual ability as measured by our Western standards, and that their boys are superior to English and American boys in docility, obedience, self-control, and politeness, while inferior in energy and manly independence.

* Griffiths in "The Mikado's Empire", B I. §3, doubts whether the Japanese had any writing before the 6th century A. D.

This inferiority I am inclined to doubt. Possibly their deferential politeness may have given rise to an opinion of their lack of independence.

The old Japanese education which existed up to 1868, was wholly Chinese in type. Its subject-matter was the Chinese classics,—careful training in morals, etiquette, and duties as expressed in external forms, with chief emphasis laid on obedience to parents and rulers, and serviceableness to society and the state; added to which was reckoning with the abacus, and some knowledge of Japanese history and laws. Its method and spirit were Chinese,—dogmatic and authoritative; no intellectual development, no growth of character, no expansion of the inner man, was dreamed of or desired; and independent thought was little better than a crime: its whole tendency was to magnify memory and to nullify the reasoning power.

Its encouragements were also Chinese, for admission to state employments was dependent on state examinations in higher learning in the Chinese classics, and especially in the works of Confucius; with this difference however that while in China there are no hereditary distinctions of rank, aside from the imperial family and the descendants of Confucius, save what learning confers, in Japan there are such distinctions, as unalterable, and guarded with as jealous sensitiveness as in many European countries; and only children of noble birth have usually attained the higher education.

Thus it may be seen that in Old Japan as in China, education was very one-sided. In the words of the present editors of Schmidt's *Geschichte*, its whole

tendency was "to form respectful sons, docile pupils, disciplined subjects, skilled copyists, enthusiastic admirers of antiquity, and narrow-minded disciples of Confucius; but it did not stir intelligence, left the individual conscience wholly under the control of custom, wakened no religious thoughts or aspirations, and encouraged the narrow spirit of caste and clan."

That sixteen centuries of this kind of training had left to the Japanese people so great a spirit of enterprise, so much intellectual ambition to grasp a richer and deeper culture, as they have displayed in the last few decades, speaks volumes for the original vigor of the race, and for its radical intellectual differences from the Chinese, with which it is sometimes carelessly confounded.

Dr. Murray, the late secretary of the New York Board of Regents, and formerly connected with the Japanese ministry of education, says that the ability to read and write is so general that but few even of the lowest classes can be found who are not able to do both; and that, unlike China, this is true of *women* as well as men. Indeed the position of women amongst the Japanese has always been higher



DAVID MURRAY, 1830—

and better than amongst most of the Oriental peoples. So too while the power of the father over his children has always been practically unlimited, extending even to the right to sell them; and while obedience and

reverence to parents has always been carefully inculcated and exacted,—the educational discipline has been and is so mild and indulgent that a somewhat recent traveller has called Japan the “paradise of children”. At present, Japanese education and its administration are organized on the model presented by the Western nations, with which their educational history seems likely henceforth to be correlated.

It may be seen, then, that in China and Japan the system of education was national in type, having chiefly in view social life in the state, and that it was modified by the prevailing idea of reverence for ancestors to a passive family form,—passive because intended to make men passive *recipients* of what was transmitted from antiquity, passive *participants* in the duties and benefits of the state. In Japan it also received a farther important modification by a fixed system of hereditary rank; and from near the close of the 12th century to 1868, was considerably hampered by the supremacy of the warrior nobility.

BOOKS OF REFERENCE FOR THE STUDENT

Confucius and the Chinese Classics —Rev. A. W. Loomis.

The Middle Kingdom.—Dr. S. W. Williams, Chapters IX, XI, and XVIII.

The Mikado's Empire.—W. E. Griffis.

View of Chinese Empire.—W. Winterbotham.

Schmidt, Geschichte der Pädagogik, 4th Ed.

History of Public Instruction in China.—Edouard Biot.

Of these, “The Middle Kingdom” will doubtless be found most easily accessible and most reliable.

CHAPTER II

ORIENTAL EDUCATION—INDIAN AND BUDDHISTIC

The educational system of India demands a brief notice, both from some of its marked peculiarities and from some important services rendered by it to Western science. It presents in its purest form the characters of a passive national system of *caste* education. As amongst most oriental nations, the dominant idea of this system is of a religious character.

In India this idea is pantheistic, a belief in the ultimate absorption of the individual soul into God, the soul of the universe, and of its preparation for this ultimate state by successive transmigrations, or reëxistences in other beings and forms, in the course of which reëxistence it might become purified and fitted for its final destiny.

It is obvious that such a fundamental belief, leading as it does to self-abnegation, would give little encouragement to an education of man for a self-asserting activity and for a feeling of individual responsibility, and that hence education and life would be likely to be passive in character. To convert likelihood into certainty, there was needed only a race of idealistic and speculative tendencies like the Hindoos, provided with a rigidly exclusive system of castes, such as has existed nowhere else in such perfection.

From the earliest periods known to history, educa-

tion in Hindostan might extend only to the males of the three higher castes, Brahmins, warriors, and traders, who might be taught reading, writing, and reckoning, with the special capabilities, duties, customs, and ceremonies peculiar to the caste of each. To the lowest caste and to pariahs no school education was granted. Higher education was also nominally accessible to the youth of the three higher castes; but in reality, the Brahmins long held a monopoly of it.

From ancient days, schools for higher learning have been cared for in India, and in them were taught grammar, history, philosophy, poetry, astronomy, law, medicine, and last but not least important, mathematics. It is now believed that the Arabian knowledge of mathematics was derived from India, and especially our convenient decimal system of notation,—not indeed with our present characters, but in all its essential features.

From their control of the higher learning, the Brahmins were naturally the exclusive possessors of all the learned employments, and so were the sole teachers of India. They accepted no payment for their services, counting it infamous to receive fees for teaching; but it was customary for the parents of their pupils to make “all kinds of presents, small or great according to their means and their good will”, and these the Brahmin teachers received with favor. This was obviously a delicate mode of opening the way to elementary education to boys of the three favored castes without regard to the wealth or poverty of their parents, though it does not seem to have been so intended.

The usual places of meeting for elementary instruction in all favorable weather, were in the open air under the shade of trees. The method of teaching was wholly dogmatic, the teacher authoritatively imparting the subject matter, and the boys reverently receiving it as from a spiritual father, committing it to memory usually without understanding it, and, in the case of religious usages and maxims of conduct, familiarizing them by habitual imitation.

In this work, the teachers made large use of the



JOSEPH LANCASTER, 1778-1838



ANDREW BELL, 1753-1832

older boys, who practised the younger ones in what they had themselves been taught. From this ancient East Indian custom, Andrew Bell doubtless derived the idea of the monitorial system which he introduced into England near the close of the last century, and which in his hands and those of Joseph Lancaster has made so considerable a figure in elementary instruction in that country, and has gradually been merged in the valuable system of pupil-apprenticeship to teaching which still prevails.

The first practice in writing was in the sand; then,

when some degree of facility had been attained, upon palm leaves with an iron point; and finally with ink upon leaves of the plane tree. From the great reverence in which the teachers were held, the discipline in these primitive schools was very mild, reproofs were rare, and bodily inflictions still more rare. Dr. Dittes says that a peculiarly East Indian punishment for refractory boys was to shower them with cold water.*

It is apparent that even if the religious ideas of the Hindoos had left open any inducements to honorable individual aspirations after higher education, the caste system would have inexorably barred the way to their realization. The best that any boy could hope for, whatever might be his personal gifts and desires, was to retain his place within the narrow limits of his ancestral caste, and to be devoted to his ancestral employments, however repugnant they might be to his tastes. He might by refractoriness and misconduct sink to a lower place; but no learning however extensive, no personal merit however great, could ever win for him admission to a higher caste.

To this cause is doubtless due the fact that all higher learning was practically confined to the highest caste; that even among them it has made no advance in recent centuries; and that the Hindoos, naturally the most gifted with all fine qualities of all the Oriental peoples, have sunk into a condition of hopeless resignation, and have offered no effective resistance to the inroads of more energetic races. Pantheism and the caste system have afforded them an education eminently

* Schule der Pädagogik, Part 4th p. 35.

effective in its fatal consequences. Besides this warning of the pernicious results on education of a rigid class feeling and of a depressing religious belief, ancient Indian educational history has bequeathed to present ages the decimal system of notation, the suggestion of the monitorial method of instruction, and a rich literature of which we are but recently beginning to realize the value.

Like most ruling hierarchies, the Brahmin caste has shown itself energetic to resist the inroads of any ideas that threatened to disturb its own supremacy. This disposition was shown in its active and successful struggle with Buddhism. This religious system which originated in India during the 6th century before the Christian era, and which is said now to number among its adherents about 400 millions of the Asiatic peoples, or more than one-fourth of the inhabitants of the globe, roused the vigorous opposition of the Brahmins, largely because the consequences of its doctrines were opposed to the caste system; and they secured its expulsion from India, except the northern part and the Island of Ceylon, about the beginning of the Christian era. -

The doctrines of "The Buddha, or wise one, while utterly ignoring any supreme creative intelligence, taught the *equality* of men; that existence is on the whole a curse; that the chief cause of human misery lies in the desires and passions; that therefore men can attain final happiness only by ruling and subduing their passions and desires, by self-denial, by universal charity, and by moral goodness, all which are within the reach of every man; that at death, the spirit unless

completely purified at once re-exists in some higher or lower form according to the tenor of its present life; and that ultimately, when completely purified by its transmigrations, it may reach a state of blessedness called *nirvana*, which many consider to differ in no essential point from annihilation.

In its generally accepted form therefore, Buddhism prompts the individual to isolate himself from his kind like the monks of the Middle Ages, and like them to practise great austerities and to pass life in introspective contemplation, that he may the sooner fit himself for nirvana. This monastic outcome of Buddhism has long existed widely in Asiatic lands, and especially in Thibet, where every father who has four sons must devote one to the monastic life; and where the highest purpose of education and of life is to attain to this condition, or at least to share in the spiritual benefits which the Buddhistic monks are thought to confer upon their fellows. This, the eminently *passive* form of education, the monks being the sole teachers, in which all the ordinary objects of human activity are taught to be worse than valueless, and in which science and art are of worth only as they minister to religion, has, in the words of Rosenkranz, "covered the rocky heights of Thibet with countless cloisters, and trained the people who are dependent upon it, into a child-like amiability, into a contented repose."

It is obvious that the original doctrines of Buddhism, corrupted though they have been to a degrading superstition by the materialistic peoples of Asia, and though they discourage that normal human activity on which the advance of civilization depends, had yet an ele-

vated ;but; narrow moral aim. Like the Christian monasticism of the Middle Ages to which that of Thibet presents so striking analogy in form and motive, it ignores the vital truth that man lives not alone for himself and his own purification, but for his fellows also; and that he best prepares himself for future blessedness, not by introspective other-worldliness, but by the complete fulfilment of all the duties which this present life imposes; so using life that, in the words of Milton,

“ It shall be still in strict measure even
To that same lot, however mean or high,
Towards which time leads *me*, and the will of
heaven:
All is, if *I* have grace to use it so,
As ever in my great Task-Master’s eye.”

The training which either example of monasticism promotes is evidently far removed from that broad humanitarian culture which the true spirit of Christianity demands.

CHAPTER III

PRIESTLY EDUCATION—EGYPT

As China may stand for the most important example of a passive national educational education, so Egypt should undoubtedly be made the leading type of an active national culture,—one inspired, that is to say, by an active idea. It deserves this prominence, not more from the great duration of its national life and history, than from the extent and richness of the culture which it attained, and from the probable influence exerted by this culture on the nations from which we inherit.

No small confusion exists in early Egyptian chronology, with a discrepancy of three thousand years between extreme estimates of its duration; yet according to an apparently conservative estimate, Egyptian monumental history begins fully 3900 years before Christ; and even then Egypt strides forth from the darkness of an unannalled past decked with the ornaments of an advanced civilization. Sculptures dating it is supposed 2,000 years before Moses, or 3,500 B. C., exhibit a feudal aristocracy of warriors with priests, magistrates, and laborers; and some of the warrior nobles occupy also priestly offices, showing that the priests had not yet become a preferred class. To these very early times, or possibly earlier, seem to be referable the earliest literary remains of Egypt, fragments

of medical works, portions of the "Book of the Dead", and the earliest known pedagogic work entitled "The Instruction of Ptah-hotep", of the 5th or 6th Dynasty; as likewise some of the largest pyramids.

Centuries of civil strife of the warrior aristocracy intervene between this time and the 12th Dynasty, of which numerous memorials exist. This Dynasty not only became master of Lower and Upper Egypt, of the Sinaitic peninsula, and of parts of Nubia; but showed itself strong enough to secure to its subjects the blessings of peace and order, and enlightened enough to care for the public weal by remarkable engineering works, like the excavation of Lake Moeris designed to secure and regulate the blessings of the Nile. The famous Labyrinth dates from this period, the culture of which differs much from that of more ancient Egypt, as is testified by several literary examples from the age. These are written in a character called the hieratic, quite different from the more ancient hieroglyphical writing; and adapted for a more rapid style of work, such as was demanded by the increase of literary activity.

Between this Dynasty and the 18th occur struggles with Semitic races and the reign of Semitic kings in the delta region, which exerted some influence on Egyptian culture and customs, chiefly by the introduction of Semitic words into the language, and of horses and chariots into their warfare. It is not impossible that the introduction of the Israelites into Egypt occurred during the latter part of this period.

The 18th Dynasty, probably about 1700 B. C., be-

gins the Golden Age of Egypt's universal domination with the reigns of Thotmes 1st, 2d, and 3d, the last of whom has been called Thotmes the Great. The high culture of this age is illustrated by the vast ruins of Carnac and Luxor, and the other quarters of the great city of Thebes with their sculptures and monuments, and by the cotets of the tombs of Thebes, which date largely from this period.

In the 19th and 20th Dynasties follows a period of civil and religious strifes, succeeded by the reign of the Ramesides, the Pharaohs by whom the Israelites were oppressed; and under one of whom, Menephtha, the exodus occurred. Georg Ebers lays the scene of his brilliant romance *Uarda*, 1352 B. C., in the reign of Rameses 2d, whom he considers the contemporary of Moses; and from this romance of a learned Egyptologist we may gain a picture of the schools and culture of that remote period which is not only vivid, but also in all probability as truthful as the materials will permit us to form.

Many memorials of this period have come down to us, more than of any other period,* in sculptures, tombs, manuscripts, the interpretation of which has afforded large knowledge of the arts, the sciences, the religion, the education, the social condition, and the political organization of this which seems the time of culmination of the Egyptian civilization, and the beginning of its political decline. Its culture is marked by the predominance of the *material* in the life of the

* The obelisk in Paris was erected by Rameses 2d at the gate of the temple of Ammon Ra in Luxor; and its inscriptions are translated in "Records of the Past", Vol. IV.

people, as is testified by its luxury, by its literature, and by that one-sided care for intellectual culture which gradually pushed into the background what we shall presently see was the dominating idea of the earlier Egyptians. The king is still surrounded by a nimbus of divinity; the warrior nobles still retain their martial power; but the priesthood has mastered the learning, and fills the high offices of the state; and that segregation of the people into distinct classes is taking place which caused Herodotus and Plato to report that a caste system prevailed in Egypt.

The revolutions in government which followed this period, and the successive conquests of the country by Ethiopians and Assyrians, by Cambyses, and by Alexander and his successors, seem to have wrought little change in the nature and extent of Egyptian culture to the time of Herodotus and Plato, from which time it mingles with the current European civilization.

This brief and rapid survey of Egyptian history has seemed expedient, not merely that we may gain an idea of the vast periods of time through which it extends, but chiefly that, by marking some of its most prominent epochs, we may gain a clearer notion of its educational history and may better apprehend the antiquity and trace the influence of its dominant educational idea.

This idea, which has left its deep impress on the monuments of Egypt, and has caused its educational efforts to be designated as an active struggle to conquer death and to cause the influence of one's earthly career to transcend the limits of the grave, was the

conviction of the immortality of the soul, and of a righteous retribution after death for the entire tenor of the earthly life. This belief, symbolized in the pyramids, those vast tombs of Egypt's early kings, in the extensive sepulchres which later ages constructed, and in the embalment of the worthy dead that after 3,000 years their bodies might be ready for the re-occupation of their former tenants, had its supernatural sanction in the belief that Osiris with forty-two fellow judges, weighed the acts of the dead who appeared before his judgment seat, and decided their future lot in accordance with the deeds done in the body. This supernatural tribunal had also its earthly counterpart in the "Court of the Dead", modelled after that of Osiris, which had jurisdiction only of the dead, and which awarded the rites of sepulture or withheld them even from the most powerful personages, according to the entire tenor of their lives, this award affecting the entire family of the deceased.

It may readily be seen how weighty an educational motive this belief and practice must have been, and how influential in promoting the virtues that were deemed essential, and in "establishing an ideal standard of living".

What was this standard, and what the virtues that were emphasized, we learn from passages in the "Book of the Dead", where in justifying himself before the judgment seat of Osiris, the departed soul says—"Yea, I recognize you, ruler of truth and justice. I brought you truth; for you I avoided lies. I acted not with craft and deceit towards men. I defrauded not the widow. I uttered no false oath; I knew nought

of lies. I did nought that 'was forbidden. I permitted no overseer to exact more labor daily from the laborers than was just. I was not frivolous. I was not slothful. I was not weak. I was not dull. I did nothing which the gods abhor. I did not set the servant against his master. I let no one hunger. I caused no tears. I have not killed, nor have I given command for secret murder. I practised deceit against none. I never took bread from the temples. I filched not the cakes offered to the gods. I did not rifle the dead of their possessions, nor of their swathing bands. I did not cheat. I falsified not the measure of corn. I defrauded not a finger-breadth in measure. I used no deceitful weights nor false balances. I took to myself no one's lands. I took not the milk from the mouths of babes. I hunted not the sacred beasts on the meadows, nor did I catch with nets the holy birds, nor the holy fish from the pools. I checked not the water in its time; I divided no arm of the stream in its course,"* etc., ending with the ejaculation "I am clean, I am clean, I am clean!"

Much of this cannot but remind us of the decalogue and the Hebrew law. Some things are peculiar to Egyptian circumstances,—such as robbing the dead and the temples, hunting sacred animals, and diverting water courses; yet even these are special forms of sacrilege and injustice; and the entire list, completed by portions which I have omitted as needless in a brief specimen, constitutes an admirable code of duties

* Further extract from "The Book of the Dead" showing the virtues emphasized by the Egyptians, may be found in the second lecture of Renouf's "Religion of Ancient Egypt".

which man owes to God and to his neighbor. These duties the ancient Egyptian felt himself bound to observe, on pain not only of spiritual misery, but of bringing disgrace on relatives, and of depriving himself of the rites of sepulture and the honor of embalmment.

Under the impulsion of a ruling idea such as this, which, in some of its leading features,—such as the esoteric conception of one creative intelligence held by the priesthood, and the belief in immortality, in a judgment and righteous retribution after death, and in the endless blessedness of the good in God—which has curiously close analogies with Christianity—Egyptian civilization flourished long and reached a high point. Doubtless much of this was held in its purity only by the most enlightened spirits, as is possibly true of most religious ideas; doubtless still more was overlaid and disfigured by superstitions which to us seem degrading, in which also Egypt is far from standing alone; but a thoughtful observer can hardly help thinking that Egyptian decline is marked by the weakening influence of this fundamental idea; and by the creeping in, during the times of the Ptolemies and even earlier, of a skeptical spirit which cast doubt on the ancient beliefs while there was yet nothing better to fill their place.

Another circumstance which doubtless exerted a beneficial influence on the education of the Egyptians, was the relatively high position of women among them. The freedom of action of their women was singularly great; not unfrequently they appear as rulers and managers; often the children are named and take rank

from the mother; to the priests but one wife was permitted; monogamy appears to have been the general practice save for the kings, and even with them one wife was the queen and ruler of the house. All this testifies to the high grade of civilization of this ancient race, and could not have failed to exert a great influence on the home training of the young.

The food of young children was of the simplest vegetables; in that mild climate little clothing was needed; and some one has estimated, I do not know on what data, that in early Egypt it cost no more than four dollars to rear a child. They used in their sports the perennial playthings of children—dolls, balls, and tops, and things imitative of the employments of their elders. They were carefully trained to obedience and reverence for parents; and some of the injunctions to filial piety that have come down to us singularly resemble those in the Hebrew scriptures, and remind us of the long sojourn of the Israelites in Egypt.

With the fifth year seems to have begun the coöperation of the school with the family in education, the school teaching, with priestly teachers, the essential elements of all learning, reading, writing, and reckoning. How general this elementary instruction was in earlier times, we have no means of knowing; but in the days of Plato, all or nearly all seem to have shared in it, since Plato tells us that the children of the masses could read and reckon.

As early at least as 664 B. C. the character that was used for writing and reading in the elementary schools was the third or *demotic* form, of signs for words and sounds, which was easier to use than either the hiera-

tic or hieroglyphic forms, but which is said now to be very difficult to decipher. The first lessons in writing were practised on tablets with a reed stylus, but when some facility had been gained the pupil wrote on papyrus with a reed pen, using black and red inks. In the instruction in numbers, pupils used as objective aids their fingers, pebbles, and the abacus, which the Egyptians as well as the Chinese had devised. Plato in Bk. 7, of the Laws, describes the boys as learning arithmetic in play, using objects of several kinds and striving emulously to excel, as is natural in play.

Education beyond the mere elements was given by priests in schools held in the temples, which seem to have been accessible to children of all classes, but which were doubtless limited mostly to sons of wealthy persons on account of the considerable expense. They were largely resorted to because of the great rewards of learning that were offered, since to those who distinguished themselves in examinations in the higher learning, were opened all the high offices of the state. Students, if very promising, might even remain to pursue investigations at the public expense. This is the earliest example of the endowment of research, and an additional evidence of Egyptian enlightenment.

In view of the material advantages that learning offered, the writings that have been preserved testify how earnestly the Egyptians pressed upon youth the value of education, illustrating this by the wretched condition of those condemned to manual toil as contrasted with the favored position of the learned, and using this as an incentive to the eager pursuit of their studies. An interesting example of this entitled

“The Praise of Learning”, the composition of which is attributed to the 12th Dynasty, may be found translated in the 8th volume of “The Records of the Past”.

In the higher temple schools, reading and writing, which had been taught with the simpler characters in the lower schools, were extended to a mastery of the hieratic and hieroglyphic symbols, which must have required prolonged study. In this work, the boys copied the Egyptian literature, both as exercises and for knowledge; and a considerable part of this literature which has been recovered is preserved in these school-boy copies.

Some of this was historic in character; some was poetic, including especial religious songs; and the first work which was read, “The instruction of Ptah-hotep” or Ptah-hept, related to moral and social duties. Since this work dates from the 5th or 6th Dynasty, it is doubtless the oldest extant pedagogic work, and one of its translators calls it “Le plus ancien livre du monde”. As a more advanced part of their literary work, boys were required also to compose on subjects and according to models of style that were furnished to them; and Schmidt (i.218) gives a curious example of one of these essays which had been presented, with the free and often slashing criticisms of the teacher thereon.

As to the extent of Egyptian knowledge of architecture, sculpture, and engineering, we are not left to probable conjectures, nor even to the evidence of written records. Their great and enduring works in each of these departments bear the record of their skill, testifying also that the feeling for the beautiful

was not developed in an equal degree with that for the sublime, since they excel not so much in beauty as in size, strength, and proportion of parts.

So also their skill in preparing colors, in making glass and porcelain, and in embalming the bodies of the dead, shows that they had some practical knowledge of chemistry. All these arts must have been improved and perpetuated through instruction, so that we may infer with a considerable degree of probability that some of them at least were taught in the higher schools, though some may have been learned by apprenticeship, which is but another sort of instruction.

Other higher subjects were afforded in geometry, elementary trigometry, and astronomy, which the necessities of Egyptian life arising from the annual overflows of the Nile, caused to be early studied and applied for the preservation or restoration of landmarks.

In astronomy, especially, their knowledge was singularly extensive; and from them the Greeks probably derived their first impulse to the study of this science, as also of geometry. With astronomy they gained also the practice of astrology, believing as they did in the influence of the heavenly bodies on the fate of men; and Europe practised this inheritance from Egypt until comparatively recent times.

Their knowledge of medicine had in very early days become very considerable, and had been divided into specialties, as is shown by the recently discovered medical "Papyrus Ebers", which is ascribed to the 16th century before Christ. There is however little apparent knowledge of physiology, which is not strange when we consider the religious regard with which the

Egyptians looked upon the human body; and the practice of medicine was mingled with many superstitious observances.

Geography, especially that of Egypt and the related countries, was well understood as early as the days of Moses; and it is not improbable that the treatises on geography and astronomy compiled in the 2d century A. D. by Ptolemy, a man of Egyptian birth, which were authoritative in Europe until the 15th century, drew their material partly from Egyptian as well as Grecian sources.

That a knowledge of the laws, and a large amount of theological lore was also taught in the higher schools, may be inferred with a degree of probability amounting to certainty, not only from the fact that these schools were taught by the priests in the temples, but also because from them came forth the men who were to become magistrates, judges, and priests. Finally the Egyptian skill in drawing and painting is evidenced by still existing illustrations in papyrus rolls.

Since most of these subjects must have been matters of school instruction in its higher sense, we have evidence that these higher schools from an early period had the means for giving a kind of training which was approximately all-sided,—caring for the body by war-like gymnastics; for the intellect by a strenuous discipline in various studies fitted to call into active exercise all its powers; for the æsthetic sense, through poetry and music, through drawing, sculpture, and architecture; and for the moral and religious sentiment by maxims inculcated under the ever-present feeling of a future retribution, and by a strict discipline.

In regard to discipline, some interesting proofs have been preserved that in those early days in Egypt, as now in America, pupils were sometimes heedless or perverse, needed thrashing which they received, and ran into evil ways in drinking and carousing with bad companions.

It is also worth our notice that the great religious festivals with their pompous ceremonies, their processions, their music, and their songs; the vast temples built in honor of the deities under whose diverse forms the one God of the initiated was worshipped; and the often-recurring sacrifices and offerings made to the gods,—must have exerted a deeply educative influence, tending to elevate the souls of even the lowest and least tutored masses, and to make more real to them the fundamental Egyptian idea of future accountability.

Finally amongst educational agencies, we must note the early existence of libraries in Egypt. It is said that more than 2,000 years B. C. there were collections of papyrus rolls of such importance as to warrant the appointment of high officials for their care. This statement is rendered highly probable by the well-known fact that in Alexandria under the Ptolemies, during the last centuries before the Christian era, it was found possible to accumulate a vast library, which numbered 700,000 volumes when it was finally destroyed by fire during the confusion of the 7th century A. D.; and it is difficult to see whence these numerous volumes could have been obtained before the invention of printing, had not considerable collections long existed in Egypt.

What our present culture owes probably to ancient Egyptian suggestions has already been mentioned,—viz. in astronomy and geography, in the mathematical sciences, and in medicine, the cultivation of which by the monks in the middle ages reminds us not only of its Egyptian origin but of the class by whom it was pursued in Egypt. Some of the greatest men named in Grecian history, Thales, Pythagoras, and Plato, beyond any reasonable doubt, were considerably influenced by Egyptian learning in their ideas of science, philosophy and government. Moses, learned in all the wisdom of the Egyptians, became the lawgiver of Israel; and it seems not unnatural to suppose that some results of a learning, so analagous in many respects to the spirit of the Jewish faith, should appear in the system of laws which bears his name.

The ancient Egyptian learning quite largely inspired the University of Alexandria, in which were trained many of the fathers of the early Christian church; and it is possible that some ideas of early Egyptian origin still cling to theology, and that too, without serious detriment to its character. Some writers indeed, and especially Renouf in the last of his lectures on the “Religion of Ancient Egypt”, deny that Egypt influenced either Hebrews or Greeks; but the a priori probability that a highly civilized race would exert influence on races with which it was brought in contact is too great to be negatived by other than weighty proofs, even if the internal evidences of coincidences in ideas, doctrines, and regulations were left quite out of view. We shall, I believe, not be liable to err greatly in ascribing to the education and civilization

of Egypt a very considerable and pervasive influence on more modern nations, and in looking to their subjects and methods of education and instruction as one of the historic beginnings of what we at present enjoy.

But whatever view we may entertain upon this point, there cannot but be an unfailing interest attached to the revelations that have recently been made to us of the high views of life and duty held by the ancient Egyptians, of their pedagogical ideas embodied after the oriental manner in maxims and proverbs, of their praises of wisdom and the motives to the attainment of high learning which are presented, and even of the kind of stories with which the youth of Egypt were regaled so many centuries ago: of all which specimens may be found in the volumes of "Records of the Past". Finally, we should not pass over in silence an Egyptian art which was of great significance for the future of learning, and this was the art of making paper from the thin inner layers of the papyrus, a large plant of the sedge family. This art was early invented by them—the extended Ebers papyrus that has before been mentioned containing internal evidence that it is 3,500 years old;—their treaties, songs, and rituals, were written on long sheets of this fabric with an imperishable red or black ink whose base was carbon; and numbers of these productions, written in some one or more of the three characters that have been mentioned, have been preserved to our own days in the sepulchres of this ancient race. Papyrus was also much used amongst the classical nations, and to a considerable extent in Europe during the middle ages until the 10th or 11th century, when it was gradually replaced by

parchment, and finally by paper made from cotton and linen fibre. That this use of the papyrus fibre as a writing material, originating in Egypt, was transmitted thence to the Western nations; and that there, when the papyrus became scarce and dear, it suggested the employment of other kinds of fibre for the same purpose, are facts that are not questioned by those who doubt the influence of Egypt in other respects.

REFERENCES FOR THE STUDENT

Schmidt.—Geschichte der Pädagogik, 4th Ed., Vol. I.

Records of the Past. 12 vols. already published.

Renouf.—The Religion of Ancient Egypt.

Rawlinson.—Religions of the Ancient World. C. I (Humboldt Library, 62).

Wilkinson.—The Ancient Egyptians.

Prof. Georg Ebers.—Uarda, and An Egyptian Princess.

Adolf Erman.—Life in Ancient Egypt.

CHAPTER IV

ORIENTAL EDUCATION—PERSIA—PHœNICIA

The education of ancient Persia, as it has been described to us by Herodotus and Xenophon, may be styled an Active National System directed to foreign conquest. It would perhaps be more accurately descriptive to call it state education, prescribed and directed by the state for the aristocratic ruling class in the Persian state, with the aim of making this class warlike citizens, trained to unquestioning obedience and loyalty to the absolute sovereign who was the state personified, and before whom all ranks faded into insignificance. The masses of the people were mere instruments of arbitrary power, and received no education save that given by the family in employments chiefly agricultural, or imbedded through the religious faith and observances of the people. So, too, the nations conquered and made tributary to Persia during the few centuries of its career of conquest, were never incorporated with Persia; but while made auxiliaries in war and tributaries at all times, were left mainly to the operation of their own customs and institutions, under the rule of Persian satraps. Thus the Persian education was of and for the Persian state. It was active and warlike, not only as an expression of the character of a hardy and energetic race inhabiting a rugged country, but as the expression also of a fundamental religious *idea*.

Zoroastrianism, the religion of Persia, regarded life as a continuous warfare, teaching that man must fight always on the side of Ormuzd, the king of light and personification of all good, to aid his ultimate victory over Ahriman, the spirit of evil typified by darkness. When therefore the Persian successfully struggled against his evil



ZOROASTER, 1000?—?, B. C.

inclinations and maintained a stern integrity; when he exterminated beasts of prey and carefully guarded useful domestic animals; when he converted deserts and rugged heights into fruitful fields and smiling pastures; when he dug new wells, or made a better use of old water-courses in promoting fertility, he was making a good fight against the spirit of evil, and bringing nearer the triumphant reign of the King of Light whom he adored with a fire never to be extinguished.

An education inspired by such an idea and which associated religion with warlike activity, when the nation had grown strong by the practice of hardy virtues, readily lent itself to that career of foreign conquest which for a time made Persia the master of the Eastern world.

In the Persian system, extreme emphasis was laid on the physical and moral training of boys, "since on their education it was seen that the welfare and perpetuity of the state depended." This was concisely stated by

Herodotus in the oft-quoted expression that the boys were taught to ride, to shoot, and to tell the truth, the first and second of which briefly indicated their physical training for their usual mode of fighting as cavalry; the third as succinctly symbolizes moral education under that virtue which is the basis of all character in its recognition of all acts and things in their true aspects, and in rigid adherence to known realities. Indeed, according to the idea of Zoroaster, whilst truth is the supreme virtue, lying and fraud are the greatest sins against the omniscient God of Light; and the very name of lie was the special appellation of Ahriman, the spirit of evil, even as in the Scriptures Satan is called the father of lies. Grote (c. 33) says that "even to buy and sell was accounted disgraceful among the Persians, a sentiment which they defended by saying that both the one and the other imposed the necessity of telling falsehood."

Xenophon, who had become acquainted with Persia through aiding as a leader of mercenaries the revolt of the younger Cyrus against his brother, the King of Persia, the disastrous result of which revolt and the retreat of the Greeks he has immortalized in the *Anabasis*,—was strongly attached to the ancient Persian customs by their analogy with those of Sparta, which he seems greatly to have admired. Hence, in the first book of the *Cyropædia*, a kind of historic romance, he gives an account of Persian education as he conceived it, in the training of the Elder Cyrus, who took Babylon, in the time of the prophet Daniel, 538 B. C.

From his description, it is obvious that the physical education given by the state was truly Spartan in its

rigor. The food and drink of the boys were of the simplest kind, bread and cresses to eat and water to drink; or when on hunting excursions, their sole food might be acorns and wild fruits. One is forced to disbelieve this dietary as not sufficiently nourishing to produce vigorous men.

They were hardened to endure exposure and hardships by early rising, by night watches, and by much sleeping in the open air. From the age of six years they were habituated to all kinds of martial exercises, to archery, to hurling missile weapons, and to the management of horses. After the age of sixteen they kept guard in the city or in strongholds, did such police duty as required agility, courage, and discretion, and often hunted fierce wild beasts in the company of their king, to cultivate hardihood and ready self-possession. Personal cleanliness, as well as dexterity and endurance, was also insisted on in physical education as a religious duty, since purity of the person betokened reverence for the spirit of light and purity.

The moral education, which was inculcated by the example of their elders not less than by precept, and thus was objective in its nature, was impressed by a continual practice of the virtues that were emphasized as of vital importance. Thus although truthfulness was considered absolutely fundamental, implicit obedience to elders or superiors was made hardly less important. Simplicity, modesty, temperance, and self-control were strongly emphasized. Ingratitude in the boy was punished with especial severity, since, says Xenophon, "the Persians think that the ungrateful can love neither gods nor parents, neither native coun-

try nor friends, because with ingratitude is ever connected a shamelessness which is the source of all vices."

Great care was taken to develop in the boys a keen sense of justice, to which end their judgment was exercised in deciding cases in which this virtue was involved. Xenophon illustrates this method of learning by doing, in the case of Cyrus, who was soundly thrashed for deciding in the case of a big boy with a coat that was too small, who had forcibly made exchange with a small boy whose coat was too large, that the affair was just since both boys were better fitted by the forced exchange. The question, said the teacher as he thrashed the young prince, was not whom the coats best fitted, but to whom they rightfully belonged.

Thus, according to Xenophon, the Persians strove to prevent crime and injustice by eradicating the inclination to them through a suitable education early begun and thoroughly ingrained by careful practice,—an example so enlightened as to be wholly worthy of imitation by modern nations, and especially in the case of neglected children, who are peculiarly exposed to temptations to wrong-doing.

The places for instruction at the capital were "at the king's gate", that is, in the open court before the royal residence; in other cities, they were in open squares or porticoes, where the elders taught the boys, and the mature men the youths. Nothing is said by Xenophon of any literary or theoretic education, and it is questionable whether any was generally given, unless the stories and poetic delineations of gods and of the great deeds of heroes, which are known to have

been used to inspire the youth to virtue and heroism, should be dignified as literary education.

Not that literary culture was lacking in Persia in the day of its power. On the contrary, true to their class spirit, they had in the magi a class set apart for the pursuit of learning who were versed in all the learning of their times; who studied and expounded the sacred writings, and were skilled in medicine and astronomy, in law and finance; who were counsellors of kings and governors in all cases of difficulty; and to whom was quite probably due whatever of skill in administration signalized Persia when its dominion was most extended. This class is said to have numbered about 80,000, a number which was possibly proportioned to the literary needs of a nation wholly devoted to agriculture and foreign conquest.

Their relation to the remaining classes of the state bears some resemblances to that of the clergy in the middle ages to the warlike nobles and ignorant multitudes of Europe. A farther resemblance to the middle ages may also be found in the care with which the high-born youth were trained to religious observances, to the manly virtues of truth, justice, and modesty, to noble deportment and brave but courteous behavior,—all which cannot but strongly remind us of chivalry.

It will be obvious that in the care of the Persians for the physical training of a favored class, and for the inculcation of certain hardy virtues chiefly fitting for loyalty and a warlike career, no emphasis however slight was laid on intellectual culture; and that there

was an utter lack of care for the general elevation of the people. Their civilization, such as it was, was but skin deep. Placed too in a position which, as we shall presently see, was analogous to that of the Spartans, as a conquering race amid conquered peoples, as a class of aristocrats amid subject masses whom no effort was made either to conciliate or to elevate,—it was absolutely necessary for the maintainence of their polity that the ancient rigid system should at all times be kept up in the education of the ruling class.

But in their career of conquest this system fell into neglect. Plato tells us (Laws B. 3, C. 12) that even the sons of Cyrus were corrupted by the influence of the eunuchs and women to whom their nurture was entrusted, and that the same was true of Xerxes, the son of the conqueror Darius. Thus it seems that an education suitable only for a career of war, was neglected when war arose; the ruling class which should have been the flower of the Persian hosts, having in themselves no intellectual resources for times of leisure, fell but too readily into the luxurious and sensual habits of the conquered nations; and the ignorant masses, long used to the despotic sway of masters who forced them to shed their blood in war but bestowed on them no compensating care, lost all patriotic interest in the preservation of a government which they knew only by the burdens that were imposed on them. Hence this vast empire fell to pieces at the mere touch of Alexander's spear; and is chiefly useful to us as a warning against a system of education so one-sided in its range, so restricted in its extension, and so liable to be neglected on the occurrence of the very exigences for

which exclusively it fitted.

In concluding this account of early Persian education, I cannot forbear to call attention to the charming romance, "An Egyptian Princess" by Prof. Georg Ebers, which presents a picture of Persian life in the days of Cambyzes that is unquestionably as trustworthy as any that can now be drawn.



GEORG EBERS, 1837-1898

Phœnicia

The fact of the existence and activity of the Phœnicians, although they have long since vanished from the earth, is of great interest to the history of civilization and education. Inhabiting a narrow strip of territory along the east end of the Mediterranean whose most famous cities were Tyre and Sidon, with an area that never exceeded 2,000 square miles, and incited to maritime enterprise as well by their position as by native character,—they made themselves famous throughout the ancient world by the vast extent and variety of their trade, by their numerous colonies stretching along the Mediterranean even to Spain, by their visits to parts hitherto unknown, amongst which were England and probably the Cape of Good Hope (Grote, Part 2d, Chap. 18), and also by their skill in many useful arts, such as weaving, dyeing, glass-making, mining, and metallurgy. They seem to have attained the acme of their power about 1000 B. C. in the time of Solomon, whom they materially aided in building

and adorning the the temple (I. Kings, Chaps. 5, 7, and 9), and with whom they joined in commercial ventures to Ophir and Tarshish (I. Kings, Chap. 10). Four centuries later, the prophet Ezekiel (Chaps. 27 and 28) describes in vivid poetic language the vast riches, the enormous extent of trade, and the pride and wickedness of Tyre and Sidon, and predicts their downfall as a consequence of their sins.

Yet great as was once their power, they long ago vanished from the earth; their language was forgotten before the second Christian century; whatever of literature they may once have possessed, disappeared before the advent of Christ, and is now known only from scanty but widely scattered inscriptions; and they are remembered only from the casual and unintended results of their restless activity.

Their educational system, which was doubtless an active national one of an industrial type, can be made out only by reasonable inference from what is known of their character and history. Throughout their career they were known not only for their commercial enterprise and their skill in arts and trades, but also for their moral depravity. They are described as cruel and sensual, lying and hypocritical, crafty, treacherous, and wholly untrustworthy. Punic faith, a term applied to one of their colonies, became a synonym for treachery. The very rites of their religion were cruel and bloody; and especially the offering of their children on the fiery altars of their gods was admirably adapted to destroy all family ties, and to train for a career of merciless adventure.

Apart from these detestable traits, they were quick

of perception, ingenious in adaptation and improvement, and seemingly also inventive. They readily caught up the arts and knowledge of the lands to which they traded, Egypt amongst the number; what they found in a rude state, they often improved; and sometimes they probably invented what was more suitable to their use as traders.

Their great service to the cause of culture was doubtless performed by disseminating in all lands that they visited some knowledge of the sciences and arts that were native in any one. Thus it was with the knowledge of astronomy derived from Egypt and the East, and which they used in their voyages. Thus it was with the art industries and with such handicraft as the Egyptian weaving and glass-making; and with mining and metallurgy, which they probably improved, if they did not invent them. Thus it was with the knowledge of weights, measures, and money, which, derived from Egypt or Mesopotamia where they had very early been devised, the Phœnicians spread over Europe.

Most significant of all, it seems to be exceedingly difficult to trace the use of an alphabet representing *only* sounds, farther back than Phœnicia. In his "Cretan Pictographs and Præ-Phœnician Script" (London, 1895), Arthur J. Evans says:

"The Cretan pictographs give us a good warrant for believing—what even without such evidence common sense would lead us to expect—that a primitive system of picture-writing had existed in the Ægean lands at a very remote period. The antiquity of these figures is indeed in some cases curiously brought out by the

fact, already pointed out, that they actually exhibit the actions of a primitive gesture-language. Furthermore we see certain ideographic forms, no doubt 'once widely intelligible on the coasts and islands of the eastern Mediterranean, reduced to linear signs which find close parallels in Cyprus and Phœnicia. Finally, some of the names of the Phœnician letters lead us back to the same pictographic originals which in Crete we find actually existing.

“To the Phœnicians belongs the credit of having finally perfected this system and reduced it to a purely alphabetic shape. Their acquaintance with the various forms of Egyptian writing no doubt assisted them in their final development. Thus it happened that it was from a Semitic source and under a Semitic guise that the Greeks received their alphabet in later day.”

It may easily seem more probable that an ingenious and practical people, little hampered by any theoretic views, and intent solely on subserving their own convenience, should devise, possibly from Egyptian suggestions, such an improvement and labor-saving contrivance as a purely phonic alphabet,—rather than some learned nation, inured and wedded to their system of representing ideas, no matter how inconvenient; possibly even counting its inconvenience as part of the settled order of things; always so intent rather on *ideas* than on their symbols as to be little likely to think of any change in the symbols; and withal, apt to dread the work of learning new symbols, and the confusion likely to ensue on any considerable change therein. Bear witness the results of efforts to reform our grotesque English alphabet which strives

to represent about forty different sounds by twenty-six characters, of which some have no distinct office, and several more may on occasion do duty for some others. For our own purpose, however, the origin of the phonic alphabet is not important; the fact of its diffusion by Phœnician means admits of no rational doubt.

Whether it is true or not that the Greeks derived from Phœnicia their first ideas and hints in the fine arts, in which later they achieved such wonderful excellency, it is certain that a thousand years before Christ the Phœnicians had become noted for their skill in the decorative arts as well as in construction. Hence Solomon engaged their services in the building of the temple; and the Tyrian artist Hiram, a man “filled with wisdom and understanding, and cunning to work all work in brass”, did the remarkable decorative work which is described in the 7th chapter of 1st Kings.

It has already been said that from the lack of Phœnician records we can know nothing directly of their educational history; but from the account of them that has just been given, we are evidently justified in making certain obvious inferences, as to the state of their knowledge, and as to the means by which it must have been transmitted from generation to generation. It is obvious that the inventors of the alphabet must have known how to read and write, and must have taught these arts to their children; that they who devised an art of reckoning, so needful to traders, in which alphabetic characters were used numerically, must by some means have taught this to their successors; that

they must have understood, and in some way have taught to their offspring, the sciences and arts which for centuries they successfully practised and often improved, and a knowledge of which they diffused so widely in their incessant trading expeditions; and that their moral schooling, in regard to which we are not left entirely to inferences, must have been of peculiarly depraved character, to perpetuate from age to age the unlovely traits by which the race was long distinguished. Instruction, teachers, and schools of some kind, therefore there must have been for many things whilst others were probably taught in the practical school of apprenticeship.

Their utter destruction as a race may teach us what are likely to be the ultimate effects on national character and fate of a mere industrial education, directed solely to material prosperity, and sanctified by no higher aims, and what must be the deplorable results on morals of a training intended merely to make successful traders.

CHAPTER V

ORIENTAL EDUCATION—THE ISRAELITES

The Israelitish government, education, and civilization, were all based on one dominant and prevailing monotheistic idea. There is one great, creative, all-prevading, and omniscient Intelligence, perfect in every attribute, and desiring from His creatures an approximation to His own perfections. His law is the supreme rule of the universe, and before Him and His law there can be no distinction of rank, for all men are *equal*. To know and act in accord with His will is the highest duty of man. Hence God was their king, earthly monarchs being granted only in anger at their distrust of their real ruler. Thus the government was founded on the revealed will of God, the fundamental points of which were expressed in the Decalogue; and, in the Mosaic code, were expanded and applied to all the circumstances and relations of life.

Their education has at all periods laid great emphasis on impressing the will of God, which is the expression of man's best and most enlightened will, and on securing in conduct due conformity to this will; hence hence it is rightly called theocratic education.

Amongst the people of Israel there was always expressed a high estimate of children, of education, and of the teacher. The Scriptures abound in passages illustrating this which are too familiar to require repe-

tition. The Jewish Talmud interprets the passages of Scripture that speak of flowers and gardens as meaning children and schools. "Do not touch mine anointed ones and do my prophets no harm," it applies to school children as the anointed ones, and to teachers as the prophets.

"The world is saved only by the breath of the school children," says the Talmund,—a vivid expression of the mighty influence of national education on national life; and again, "Study is more meritorious than sacrifice." "You should revere the teacher even more than your father. The latter only brought you into this world; the former indicates the way into the next; but blessed is the son who has learned from his father; he shall revere him both as his father and his master; and blessed is the father who has instructed his son."

The Talmund tells a pretty story illustrating the high regard for the office of the teacher. There was once a great drought during which the greatest and most pious men prayed vainly for rain. Then appeared a humble and insignificant-looking personage who also prayed for rain; and straightway the clouds gathered, the heavens were darkened, and rain fell abundantly. "Who are you?" asked the astonished people. "I am," he answered, "a teacher of little children." Let it be recalled that God himself is represented in the Bible as becoming the teacher of the Hebrews, and that Christ was the Great Teacher of mankind; and the kindly command "Suffer the little children to come unto me, and forbid them not, for of such is the kingdom of heaven," was but the

divine embodiment of a sentiment common to the Hebrew race.

It is needful to distinguish two periods in the history of Hebrew education. During the centuries which intervened between the days of Moses and the Babylonian captivity, we are assured by the learned Hebraist, Emanuel Deutsch, that there was in the Hebrew tongue no word answering to *school*, whilst later fully a dozen were in common use.

This fact points significantly to the dividing line in the *form* of their education. Up to the time of the captivity, the education of children was carried on wholly in the family, and the parents were the teachers. This family education was dominantly moral and religious, and its subjects and methods are adundantly shown in the Hebrew Scriptures. They were the great history of the Hebrew people, and of God's dealings with it; the precepts of their religion; and the rites and observances of their Law, of which none were permitted to be ignorant.

That reading and writing were also commonly imparted, may be inferred with some degree of probability from a passage in the 11th chapter of Deuteronomy which says, "Therefore ye shall lay up these my words in your heart and in your soul, and bind them for a sign upon your hand, that they may be as frontlets between your eyes. And ye shall teach them your children, speaking of them when thou sittest in thine house, and when thou walkest by the way, when thou liest down and when thou risest up. And thou shalt write them upon the door-posts of thine house and upon thy gates," etc.

The direction in this passage, which is a general one to write the Divine words upon door-posts and gates, would obviously be meaningless to a race that could neither read nor write; and it was quite possibly interpreted in the best days of the early Hebrew polity as an indirect command to parents to teach these elements of learning. This passage is also significant as indicating the method of instruction, since it is a command to fathers to teach their children their duties on all convenient occasions by word of mouth and by example.

To multiply the occasions for these parental instructions in religious duty and national history, and to add emphasis to the lessons thus given by making them objective, most effective means were afforded by the weekly recurring Sabbaths, and by the several great national festivals. Especially the great Feasts were a most impressive educational agency, commemorating as they did the Divine presence and care in the most interesting events of Hebrew history; in the Passover, the deliverance from Egyptian bondage; in the Pentecost, the giving of the Law on Mount Sinai; in the Feast of Tabernacles, the prolonged wanderings in the wilderness. On the recurrence of each of these anniversaries, parents were enjoined to explain their significance in answer to the natural inquiries of their children after the meaning of so singular ceremonies.

Let us take as an example Exodus xii.26, where instituting the Passover, it is said, "and it shall come to pass when your children shall say unto you, what mean ye by this service? that ye shall say, it is the sacrifice of the Lord's Passover, who passed over the

houses of the children of Israel in Egypt, when he smote the Egyptians and delivered our houses." Again in Deuteronomy vi. 20 this duty of parental instruction on the occasion of festivals and other ceremonies is much more fully enjoined and made general; and in Joshua iv. 5, we find an occasion seized for establishing a visible memorial which should attract the attention of children, and give opportunity for parental explanation. It is worthy of passing remark in this connection, that as the times of these great festivals were fixed by astronomical events, they made essential a certain elementary but important knowledge of astronomy.

During this early period, as throughout all portions of Hebrew history, the Divine command to honor father and mother was not permitted to become an idle injunction. Obedience and reverence to parents, of which their fathers had witnessed the salutary effects in Egypt, were strictly enforced.

A number of passages in the Proverbs of Solomon show also that the rod was valued as a means of enforcing discipline. In the "Wisdom of Jesus, Son of Sirach", written in the second century before the Christian era, and which deserves to be ranked with the Proverbs as a Jewish treatise of pedagogy, we find frequent injunctions to children to reverence and support their parents, and to parents to teach their children, to enforce early obedience, and to chasten them with the rod when refractory. The 3d and the 30th chapters of this book will be found especially emphatic in this respect.

After the return from the Babylonian captivity, 536

B. C., schools make their appearance in Judea, with words in the language to designate them, some of which were derived from the Greek, others poetically descriptive of their arrangement, from the Aramaic.*

Here then begins what we have called the Second Period of Hebrew education. Probably the Israelites, during their sojourn in Babylon, in which Daniel and some others of their number had gained great eminence through learning and wisdom, had caught up the idea of schools from those existing in that country for priests and the privileged classes. Amongst the Hebrews there were no privileged classes, since all were equal before God; hence whatever instruction was given was open equally to all.

Up to 220 B. C., the scribes, as guardians and expounders of Scriptures, were the instructors of the people and teachers of the schools. After this period for four hundred years, a class called Learners and Master Builders arose as teachers; and, during all the changes and confusions of that troubled period,—the successive conquests, the revolts, the destruction of the Holy City, and the final expulsion from Palestine, we are assured by Deutsch¹ that the schools taught by these devoted men were never suffered to be seriously interrupted. "The Law," as the great subject-matter was called, "flowed on, and was perpetuated in the face of a thousand deaths."

If such was the case, and the evidence of the Rabbinical writings on this point is said to be clear, it evinces a devotion to the training of the young unparalleled save in the later annals of the same tena-

* E. Deutsch.

cious Hebrew race itself; which amidst the confusion and dense ignorance of the middle ages, subjected to incessant persecutions and intolerable oppression, never once suffered the knowledge of Hebrew learning and the traditions of family training to die out; and which, during those same ages of darkness, could point in northern Africa and Spain to many Jews as amongst the most learned expounders and wisest promoters of the higher learning. Here we shall meet them again, when their own history has become inextricably mingled with that of other peoples.

In Palestine, eighty years before Christ, education was even made compulsory, and again in 64 A. D., every town was enjoined to support a school. For these schools and for public education, which even after the downfall of Jerusalem, continued to flourish until the 11th century in various parts of the east and especially in Babylonia, the regulations were very comprehensive and minute. The sites for schools, the approaches to them, the age of pupils, the numbers per teacher, the character of the teacher, who was required to be married; the nature of his discipline, in which mildness and patience are enjoined; the duties of parents in respect to preparation and supervision of their children and coöperation with the school; the subjects and methods of study,—all receive due attention in these school regulations.

The subjects taught, many of which were obviously confined exclusively to the higher schools, were, next to the law, ethics, history, grammar, medicine, mathematics, astronomy, natural history, jurisprudence; and some languages, of which the Aramaic, the spoken

language of Judea in the time of Christ, and the Greek which had become the French of those times, were naturally the chief. It is said even to have been common to teach Greek to girls. This list of subjects given by Deutsch on the authority of the Rabbinical writings, is certainly a generous one, although doubtless the extent of the instruction given in several of these branches might easily be overrated.

In regard to method, "some of the chief principles laid down were, fundamental grounding, elementary material teaching, and constant repetition." The end of learning is *doing*, says the Talmud. The judiciousness of these principles so far as they extend, will hardly be questioned at the present day. We are assured that in the higher schools intellectual activity prevailed, and that the method answering thereto was by questions, brisk debate and discussion, and close investigation. Masters of the laws were held in great respect; and this was true however humble their calling, since all honest labor was held in honor. It is told that a newly-elected president of a college was found all grimy in the midst of his charcoal mounds, by those who came to announce his appointment to high educational position. In these days, we should be little likely to seek among charcoal burners for men of great eminence in polite learning.

In this account of Hebrew education, I have said nothing of the early prophets like Samuel, Elijah, and Elisha, whose function as teachers of the people was evidently more analogous to that of our modern preachers of religion than to that of teachers of youth; nor has mention been made of those collections or guilds

of good young men in training for the prophetic office, which have been termed "schools of the prophets". Teachers of youth, in the sense in which the term is ordinarily used, the prophets certainly were not, and it is probable also that the priests never were; and it has not seemed expedient in this brief sketch, to lay emphasis upon their educative influence on the national life, considerable as it doubtless was through rousing the consciences of parents and elders.

It would not however be fitting to conclude an account of Hebrew pedagogy without directing marked attention to the Great Teacher who appeared amongst the Jews in the fullness of time, and to His teachings as narrated in the Gospels, which merely in their pedagogic aspect present the noblest models for popular instruction that can anywhere be found. They evince the Divine Teacher in their entire method; since they give a new and deeper meaning to familiar maxims and expressions; condescend to the stand-point of the experience of the humblest in expressing the most sublime virtues; and illustrate abstruse doctrines by methods purely objective in a way that the wisest teachers may well imitate without hoping ever to equal. The principles of pedagogic method which the keenest intellects of modern times have long been striving to establish in school practice, were exemplified ages ago in Palestine in their perfect form by Jesus of Nazareth.

REFERENCES

The Bible, Old Testament and Gospels; The Talmud, or the Collected Works of Emanuel Deutsch, Article, "The Talmud"; K. Schmidt, *Geschichte der Pädagogik* Vol. 1; Dr. Dittes, *Schule der Pädagogik*, Part 4; Report of U. S. Commissioner of Education, 1870, p. 359, etc.

CHAPTER VI

GREEK EDUCATION—SPARTA

It should be borne in mind at the outset that no one is now in a position to give an account of Greek education as a whole. Indeed there was no system of education, embracing many like characteristics, that was common to the many petty states into which what we know as Greece was divided. These states differed widely in many important traits of character, in forms of political and social polity, and even in the dialects which they used of their common language. Though their periodical national games, celebrated in common, formed a loose bond of union, and though, impelled by common dangers, they sometimes entered into alliances for national objects, yet they were frequently brought into hostile contact by real or supposed conflict of rival interests. Hence there was, in no real sense of the term, a Greek nationality; and from the differences of character and of social polity which existed in the several states, we should naturally expect that, with the probable exception of warlike gymnastics and the common heroic songs, there would be wide divergences in what they would emphasize in the training given to their youth. This expectation is fully realized in the case of the two prominent states, Sparta and Athens, about whose educational systems only we have any considerable information. These systems, as we shall see, might well be called polar opposites.

Again, the education given in these two best known Greek states, which was doubtless in the respect now to be named typical of all the rest, was by no means a general education. It was strictly confined to the citizen class, which was in most cases but a small minority. For example, in Athenian Attica in the times of Pericles, there are said to have been 20,000 male citizens and 400,000 slaves, a condition of population which was fully paralleled in the state over which the Spartans bore sway. The citizen education in Sparta included in its scope both sexes, being in some respects well-nigh identical for both, whilst in others it had regard for the different spheres of activity of the man and woman. In Athens, women, limited to a life of domestic seclusion, were mostly excluded from the benefits of that large culture the results of which have given fame to this city. This is obviously another important limitation to the generality of education, shutting out from its benefits one-half of even the small favored class.

Although Athenian education treated man as an individual, inasmuch as it aimed at a complete development of all the powers and capabilities with which man is endowed, and inasmuch as it regarded individual differences of capacity,—approximating in these respects to the Humanitarian type, still the Athenian, like the Greek in general, did not gain his importance by virtue of his individuality, but rather as a member of his state, as a citizen; and to the skilful performance of his duties as a citizen, his education, however individual it might appear, bore almost exclusive reference. The idea of the independent worth of the in-

dividual man seems never to have been fully conceived by the Greek mind, as it must have been by the Egyptian; nor was there such significance in the home life, the life of the family, as amongst the Hebrews, since in Athens the secluded and subordinate position of women forbade this, while in Sparta the men and boys ate at a common table and not at home, and were regarded as belonging to the state and not to the household. Hence Greek education was thoroughly national in its general type.

In Sparta, this type was modified, as well by the character of the race as by their circumstances, to adapt them for dominion at home and for conquest abroad, and hence was similar to the Persian education already described, though not by reason of the same fundamental religious idea. In Athens, since an all-sided development was provided for in a degree then unusual but with especial emphasis laid on *taste*,—an emphasis indeed which well-nigh identified beauty and harmony with morality, the Athenian system of education has been styled the æsthetic individual variety of the national type; and this seems to me to be fairly descriptive of its most prominent characteristics.

Let us then bear in mind, that though in the Greek character there was a strong religious element which gives color to their art and to many of their usages, still the idea which dominates in their lives, and which finds expression in their educational systems, was the idea of citizenship in a certain kind of state,—warlike with little refinement in Sparta,—in Athens, ready for war yet equally ready in peace to mingle the enjoy-

ment of refined pleasures with the active duties of citizenship.

Having now directed attention to some circumstances that seem needful for a correct understanding of Greek culture, and having signalized the controlling idea in their civilization and education with the different and most significant variations which it assumed in the two best-known Grecian states, let us examine more closely the special aims which Sparta and Athens proposed to themselves in the training of their youth, and the means by which they strove for the attainment of these aims. And first of Sparta.

It has already been said that the Spartan system was exclusively national in character, and was shaped for a career of war and domination. This dominating and war-like character was in a measure impressed upon them by their circumstances. They inhabited as conquerors the state of Laconia in the southern part of the Pelopounesus, to which subsequently they added by conquest some of the neighboring states. In their home state the Spartans were themselves a small minority, a warrior aristocracy, surrounded by a much more numerous subject population made up, in part of the descendants of the aboriginal inhabitants of the country, in part of persons enslaved in war.

This subject population constituted the two classes called Perioeci and Helots. The Perioeci, or "dwellers around" Sparta, were free men, held lands for which they paid taxes or tribute to the Spartans, plied handicrafts, and did business as traders; but they had no political rights, nor were they permitted to intermarry with the Spartans. As a class, they

were probably the intellectual superiors of their aristocratic lords; their trade gave them the culture which is derived from contact with other peoples, to which some circumstances mentioned by historians give us reason to think that many of them added a degree of intellectual culture to which the Spartans never attained. They are said to have peopled as many as a hundred cities, and Plutarch in his life of Lycurgus tells us that 30,000 allotments of land were made to them, whilst 9,000 were assigned to the Spartans near their capital city. They were excellent sailors, and also served in subordinate positions in the Spartan army. Such was one of the classes that were to be held in subordination.

The Helots were serfs attached to the soil. They served in the most menial employments, and were subjected to the grossest indignities, being even made drunk by their masters as an example to the Spartan youth of how beastly a vice drunkenness is. They not only had no rights that any one was bound to respect, but they even held their lives at the caprice of their savage lords, who when their numbers increased alarmingly, thinned them out by the merciless slaughter of those who appeared most manly and robust,—even making this murder of the Helots a sort of finish to the education of young men, a university course in a school of hard-heartedness. Plutarch, while properly reprobating this practice in a race which he evidently admired, takes pains to express his opinion that his hero Lycurgus never sanctioned by his laws a custom which he justly terms abominable.

It is evident that a small ruling class which seems

never to have exceeded 9,000 families, surrounded by a much more numerous subordinate and servile population, none of whom they took any pains to conciliate, and part of whom they treated with savage cruelty, had need to fit themselves to maintain their supremacy by the strong hand. And this they did.

They ascribe the origin of their polity, with which their educational practice was closely interwoven and for which it prepared, to Lycurgus, who probably lived about 800 or 900 B. C. Its chief aim was to insure physical vigor, endurance, and dexterity, with such mental and moral qualities as sound judgment, courage, fortitude, temperance, and unquestioning obedience, which allied with physical capability would adapt for a career of domination.

To insure physical vigor, new-born children were examined by the elders of the tribe, and if they appeared feeble or mal-formed they were exposed to die in a place appointed for that purpose. Promising children were trained at home for the first seven years to have no childish fears and to exhibit no childish peevishness; and were subjected to a hardening discipline which even yet is sometimes claimed to promote vigor of body, but which may be suspected to give rise to this opinion by destroying all who are not able to endure the hardening process, that is to say by the survival of only the fittest in a physical sense.

At seven years of age, while the girls remained at home to learn from their mothers household duties and the management of slaves, the boys were received into public buildings somewhat like modern barracks, where they henceforth lived in common, ate at a com-

mon table, "slept in companies on beds made of the tops of reeds which they gathered with their own hands without knives," and, to which in winter they were permitted to add a little thistle down for extra warmth, "went barefoot and played for the most part quite naked," and were "enrolled in companies where they were all kept under the same order and discipline and had their exercises and recreations in common."

Thus the boys were removed from all home ties and influences, and that intangible entity, the state, to which they always belonged and which at first had decided that they might live, became their sole mother and educator.

Their diet while nourishing was coarse and spare, but they were permitted to add to its abundance by dexterously purloining articles from gardens or from the common tables; on pain however of being sent hungry to bed if caught, with a severe whipping for their maladroitness. This permitted theft was intended to teach them self-reliance and adroitness in helping themselves to necessary supplies when on military expeditions.

Plutarch tells us that at twelve years of age their under garment was taken away and henceforth but one upper one a year was allowed them, and that hence they were necessarily dirty in their persons and not indulged in the great favor of baths and oils save on some particular days of the year. Our ideas of Spartan filthiness gained from this statement of Plutarch will however be somewhat modified when we reflect that most if not all their gymnastic exercises were performed naked and were doubtless attended by profuse

perspiration; and that one of their usual exercises was swimming.

Gymnastics, which was their chief means for training the young, was directed solely to the end of making men ready for war and able to endure its hardships. The exercises were running, jumping, and swimming for the younger boys, to which appears to have been added ball playing to strengthen the arm and give quickness and accuracy of eye; for the older youth were added wrestling, hurling the discus and the spear, and practice in military evolutions and in mock fights. Hunting was also encouraged as among the Persians, for the grown-up youth, to cultivate courage, hardihood, and ready self-possession in exigences. In some of these gymnastic exercises girls also were practised. Up to the 7th century B. C., merely open spaces were set apart for gymnastics; from that time, the palaestræ were more carefully prepared and were enclosed; finally enclosed and roped gymnasia were erected.

Music, which was the sole public means for spiritual education, was directed chiefly to the end of inspiring the love of country, of awakening in the soul admiration for heroic deeds and contempt for cowardice, and of rousing in the young an active longing for future conflict in which they might hope to rival the fame and fortune of those whose deeds they sang.

The songs which were taught to the young, and which they sang sometimes chorally, sometimes responsively, according to their form, were of the old heroic type, simple and natural in their structure, elevated and inspiring in sentiment, and voicing the war-like practice, and religious feelings of the race.

These songs, which served also for their religious ceremonies, were accompanied by the lyre and the lute, which the boys were taught to play; and with these were combined the Pyrrhic or warlike dances, the description of which cannot fail to remind us of the war dances of the aborigines of our own country, which were of very similar character and were practised for like purposes.

The poems of Homer were said to have been introduced in Sparta by their lawgiver Lycurgus, and became favorites because their heroic pictures harmonized with the warlike aspirations of the people. Familiarity with these and with other poems whose character has just been mentioned, was the nearest approach to a culture of *taste* which the Spartan education ever made.

Reading and writing formed no part of the Spartan educational system. This system so far as it extended was an absolutely public one and was compulsory. "Every man was a teacher of the boy; every youth had to honor as his teacher every grown man and every man of gray hairs," and to submit himself dutifully to his discipline, even when it was emphasized by blows. Blows were by no means spared in the instruction of both boys and well-grown youths.

We are not however entitled to infer from the fact that no place was given to reading and writing in this public instruction which was so emphatically war-like in its purpose, that therefore no Spartan was able to read and write. The correct inference would possibly be that whatever literary instruction may have been given was a matter of purely private concern, and it

is possible that some Spartans may have been thus privately taught, though no mention of such a fact has come down to us. There was however little encouragement to literary culture, since the Spartans had no literature save Homer and their lyric poetry, and this they committed to memory. Their simple code of laws was also carefully memorized. Why then should a Spartan trouble himself to learn reading?

Their moral or rather character education, like the rest, laid chief emphasis on qualities adapting for war. Unconditional obedience to elders and superiors was rigidly exacted, both from its necessity in military affairs, and because they believed that only by exact obedience can one ever learn rightly to command. To the old, the Spartan youth were to render not merely obedience but reverence, to yield place to them in the streets, and to rise in their presence; so that it was said "Sparta is the only country in which it is pleasant to grow old." A story is told of an old man who, entering a crowded theatre in Athens where he was derided by some and neglected by all, when he came to the seats of the Spartan ambassadors was at once received among them, all rising out of respect for his gray hairs. Hereupon the whole audience burst forth in applause; and the old man said, "The Athenians indeed know what is seemly, but the Spartans do it."

Complete self-poise, truthfulness among citizens, and simple straight-forwardness of manners, were strongly impressed. The manner in which self-helpfulness and adroitness in war were taught by permitted theft has already been mentioned. A stoical endurance of pain was inculcated by lashing the boys severely

on certain occasions, when it was a point of honor to utter no cry, however sharp the infliction might be; and it is said that sometimes a lad fell dead under the blows, but without uttering a groan.

A correct judgment of men and things was taught at the common meals, by asking of boys questions concerning matters involving the exercise of a judicious judgment, to which they were expected to give an immediate reply with a reason or proof to confirm their judgment; all couched in the briefest possible form of words. If the answer was bad or too verbose, the boy was liable to punishment. "This," says Plutarch, "accustomed the boys from their childhood to judge of the virtues and to enter into the affairs of their countrymen." It was certainly a practice well adapted to train to rapidity and soundness of judgment.

The brevity of expression to which in these exercises the boys were enforced became famous indeed as a Spartan trait; so that brief and pithy expressions, with much meaning condensed in few words, came to be called laconic. Such was the explanation given by a Spartan of the fewness of their laws, "To men of few words, few laws suffice;" and also the witty rejoinder of Pleistonax to an Athenian orator who had twitted the Lacedemonians with being illiterate, "True, for we alone of Greeks have nothing bad from you." Plutarch gives abundant examples of this pregnant brevity of speech usually seasoned with wit, revealing in the ready sense of humor a gentler trait in the character of these stern and rugged warriors.

Mention has already been made of the abominable Spartan custom called the *crypteia*, of completing, as

it were, the education of the grown-up youth by the unprovoked murder of the most vigorous of the wretched Helots. "This crypteia," says Schmidt in a half-apologetic tone, "was withal a practical means of education, a practice for war; and indeed the Helots were generally looked upon only as tools which they used and on which they practised."

Such then was Spartan education; its aim, as Aristotle remarks, to fit men not for citizens in peace, but for soldiers in war; its means the obliteration of all family ties, the suppression of individuality, the elimination of the physically weak, the exaltation of the physical over the spiritual, and the perfecting for war by a previous practice in assassination; its product, a hard-hearted but vigorous and conquering race, dead to all finer feelings save that of biting humor, exceedingly illiterate yet possessed of good practical judgment, despising all useful labor as slavish, and so unsuited for anything but a career of war, so unfitted for rest and peace, that, to use the words of Aristotle, "As soon as they had gained a supreme power over those around them they were ruined; for during peace like a sword, they lost their brightness; the cause of which lay in their education (legislator) which never taught them how to be at rest." (Politics VII. C. 14.)

REFERENCES

- Grote, History of Greece. Part 2. C. VI.
Plutarch and Lives, Lycurgus.
Smith, History of Greece. C. VII.
Schmidt, Geschichte des Pädagogik. Vol. I.
Dittes, Schuler der Pädagogik. Part 4th pp. 48-56.

CHAPTER VII

GREEK EDUCATION—ATHENS

It has already been remarked that in general character and in aim the educational systems of Athens and Sparta were polar opposites. Though both national in type, strongly emphasizing man's relation to the state for whose service he was trained, Athens shows a consciousness of the fact that man's value as a citizen depends largely on the completeness of his moral and intellectual culture, as well as on his bodily capability. Hence her education was, for the times, remarkably complete and symmetrical.

Its aim is concisely given by Plato in that admirable definition which occurs in the beginning of the 7th Book of the Laws, "A nurture perfectly correct ought to show itself able to render both bodies and souls as beautiful and as perfect as they are capable of becoming." The statement of this aim by Aristotle in Book 7th C. 14 of the Politics, is equally good and even more explicit; where after postulating that "the virtue of a good citizen and a good governor is not different from that of a good man"; and that hence the instruction which fits for the one will fit also for the other vocation, he says "men ought to be fitted for labor and war, but rather for rest and peace,—fitted indeed to do what is necessary and useful, but still more what is noble. It is to those objects that the

education of the children ought to tend, and that of all those ages which require education."

Although these statements of the two great Athenian philosophers were intended only as the expression of their own views as to the scope of education, they still embody clearly the purpose of Athenian culture in the best days of the republic. It was beauty and grace for the body, and a complete development of the powers of the soul,—a culture fitting the citizen as well for the occupations and enjoyments of peace as for the duties of war; yet the emphasis that was really laid on the love of beauty and on taste, finds its expression in the fact that the word music, designating the means of culture for the soul, gradually absorbed into itself the designation of all other subjects, and ceasing to be specific became generic in its import. Thus in considering, as we shall do presently, the means of education in Athens, when they are said to have been gymnastics for the body and music for the soul, we shall do well to bear in mind the following statement of Grote (C. 67): "The word music is not to be judged according to the limited signification it now bears. It comprehended from the beginning everything pertaining to the province of the nine Muses, not merely learning the use of the lyre, or how to bear part in a chorus, but also the hearing, learning and repeating of political compositions, as well as the practice of exact and elegant pronunciation. As the range of ideas enlarged, so the words music and musical teachers acquired an expanded meaning, so as to comprehend matter of instruction at once complex and more diversified. During the middle of

the 5th century B. C. at Athens, there came thus to be found among the musical teachers men of the most distinguished abilities and eminence, masters of all the learning and accomplishments of the age, teaching what was known of astronomy, geography, and physics, and capable of holding dialectical discussions with their pupils upon all the various problems then afloat among intellectual men."

This passage illustrates and brings into clear light, not only the generic import which the word music came to have, but also the strong æsthetic leanings of Athenian education, which "comprehended from the beginning everything pertaining to the province of the nine Muses."

As a policy of culture, education at Athens would seem to have begun with their law-giver Solon, about 594 B. C. This policy favored the free development of every male citizen, offered to it the widest scope, and with the rise of democratic institutions in the following century, gave to such development the largest encouragement by opening the highest places in the state to individual pre-eminence. From this time, the purely democratic nature of their government, the publicity of all political and judicial transactions, the free social intermingling of the citizens to which the character of the Athenian people always impelled them, the common religious ceremonials, and the theatrical representations, all acted as powerful incentives rousing men to an active culture as a means of securing not only influence but even enjoyment. Hence, though in Athens education was never enforced as in Sparta by positive enactment, and was always

left to private initiative, yet the most influential motives were presented for its encouragement.

Solon's laws, we are told, took great pains to bring labor into honor as the only means of preventing the recurrence of debts and the consequent personal servitude, from which at the outset he is said to have freed the citizens by a summary abolition of previous debts. Every boy was henceforth to be taught some useful occupation as a means of livelihood, and was absolved from the obligation of supporting his aged parents if they neglected this duty, whereas otherwise he forfeited his citizen rights if he refused to care for them.

Karl Schmidt gives an account of Solon's educational enactments derived from an oration of Æschines. They bound every citizen to have his sons educated in music and gymnastics on pain of losing all claim on them for support in old age; prohibited by severe penalties any person save the nearest male relatives of the teacher from entering a school in session; forbade the gymnasiarch from admitting grown persons to the gymnasium at certain school festivals on pain of punishment as a corrupter of youth; prohibited slaves from remaining in a palæstra or practising its exercises; fixed the hours of school as not earlier than sunrise nor later than sunset; enacted that any one who equipped a chorus of boys should be not less than forty years old; and denounced the punishment of death against any one who should steal from a school to the value of more than a hundred drachmas, or about \$20.

To this curious school code, which is interesting both for its matter and for its great antiquity, may be added

on the authority of Plutarch, that Solon limited the power of a father to sell his children to the case of an erring daughter; and that he is reputed to have fixed by law the maximum number of pupils per teacher, and to have introduced into Athens the poems of Homer, before unknown in that state. These poems, his relative Pisistratus not only caused to be carefully collected and arranged in consecutive order, as also the poems of Hesiod and the Cyclic poets, but also established as subjects of school instruction, which, as is obvious, was a matter of great pedagogic importance. Some collection of historic annals is also ascribed to Pisistratus.

Having acquired an aristocratic supremacy at Athens, which he measurably justified by the wisdom and mildness of his administration, Pisistratus inaugurated that policy of adorning his native city with beautiful buildings and public monuments, which, being continued in the succeeding century by Pericles, gave to Athens a means of public culture that in all later times operated powerfully though silently upon a people unusually susceptible to all æsthetic influences. This it was which enabled Thucydides to say with justifiable pride: "Athens is wholly a school for Greece. This evinces the power of our state which we have founded by our virtue. Of this power we have set up great monuments and speaking witnesses; and for this shall we reap admiration from our contemporaries and from posterity."

With this notice of earlier education, we come to that period on which the historian of education must always lay chief stress, the period which began in the

fifth century B. C., and during which Athens acquired that intellectual supremacy that constitutes her title to imperishable fame. The aim of education through which she gained her enviable intellectual position, we have already considered. It is now a matter of interest to examine the system, the means, and the method of that training under which grew up the galaxy of patriots and statesmen, of orators and historians, of poets and philosophers, of architects and sculptors, which has been the admiration of all succeeding times, and which has furnished models to the ambitious student in every department of literature and art.

And first as to the system. Unlike Sparta, education in Athens, as has already been said, was always a purely private affair, something which parents were to provide for their children each in his own way, and in accordance with his means or his views for their future. Likewise teaching was a vocation open to any one to enter, with no prescribed tests of fitness, and no supervision save in the case of the gymnasia which the state had erected. That many unfit persons became teachers is wholly probable, and this was undoubtedly the chief cause of the low esteem in which this occupation was at some times held. Teaching was specialized, different teachers instructing in separate branches like gymnastics, music, elementary literature, and more advanced literature. Thus the boy went in turn to his music master, his literary teacher, and his pædotele or teacher of gymnastics. The primary literary teachers were called grammatists, the higher ones grammarians. Besides these, the sons of wealthy people had an attendant, usually a slave, called a peda-

gogue (*παιδαγωγός*), i. e., boy leader, who attended them to school, watched over their manners, taught them polite usages, and acted as general adviser and mentor, without at all having the functions of a teacher in the usual sense of the word.

Rooms set apart for school-use are said not to have been common in earlier times, teachers meeting their pupils in the street, in open places, or under porticoes. This statement however was probably true only of the poorer teachers, those in better circumstances having rooms in their houses where they received their pupils. The law of Solon cited above against intrusion on schools, obviously has in view schools in rooms; and is equally good as showing Athenian practice in the 4th century B. C. and earlier, whether the laws quoted by Æschines were or were not real laws of Solon. Such rooms had a platform for the teacher, and stools but no desks for the boys. They were furnished with a reckoning board fitted with groves and pebbles for arithmetical instruction; and they are said in some cases to have had pictures to illustrate scenes in Homer, the common reading book, as also simple figures to give elementary ideas of geometry.

The discipline of the schools seems to have been strict, and the rod was doubtless freely used for its enforcement. An oft-quoted passage from Aristophanes represents the music master as teaching the boys some good songs in a very decorous style, and thrashing any mischievous urchin who ventured to adorn the notes with extra flourishes of his own. The education of the poorer or less ambitious boys was probably limited

to reading, swimming, and a trade, according to the precept of Solon.

In Book 7th of the Laws, C. S. 11th and 14th, Plato proposed that elementary education should be made compulsory for all children of both sexes. "All men and boys," he says, "must by compulsion be instructed as well as they can, since they belong to the state rather than to their parents. The very same things my laws would name for females as for males, for it is meet equally to exercise the females likewise."

Again, having assigned the three years from ten to thirteen for learning to read and write, and three years more for music, he adds "nor let it be lawful for a father to permit, nor for his son of his own act to make his application to these studies, more or less, and for more or less years; and let him who disobeys this law be deprived of those youthful honors presently to be mentioned."

Thus we see that the great Athenian sage more than twenty-two centuries ago, clearly expressed the right and duty of the state to enforce the general education of all children of citizens against the indifference or unwillingness of parents and the refractoriness of children; and that he proposes for disobedience an influential penalty, apparently no less than incapacity to fill the chief offices of the state (B. 12). Only in recent times have the most enlightened nations risen to the level of this wise policy; so long ago proposed; and it is a subject for rejoicing that the United States, which is doing so much for popular education and at such cost, has begun to accept the logical consequences of its institutions by making effectual provision that

the culture which it so abundantly provides shall reach the classes whose very neglect proves that they need it most.

General school education would appear to have ended at Athens with the sixteenth year, and to have given place, with the great majority of youth, to a training for industries or for war and arms. To a much smaller number of young men, the élite spirits, a higher culture fitting for the active duties of citizenship in a democratic state, or for the nobler enjoyment of a refined life, was given by a class of men called sophists, who exacted considerable fees for their services, or by philosophers like Socrates, Plato, and Aristotle, most if not all of whom taught for the love of it, and thought it ignoble to accept payment for such services. Of these we shall have occasion to speak more fully in another place. What has so far been said is intended merely to afford a general view of the system of Athenian education, its limitations and its accessories. It remains that we examine more closely its means and the spirit and extent in which these means were used, as also the methods which were used in impressing them.

I am not inclined to treat here the military training of the Ephebi, which was of somewhat late introduction, and which belonged in all probability to the wealthiest class of youth between the ages of sixteen and twenty. To those who are interested in this, the account given in chapter VII of Mahaffey's "Old Greek Education", will be found sufficient.

CHAPTER VIII

GREEK EDUCATION—ATHENS—MEANS AND METHOD OF ELEMENTARY EDUCATION

The Athenians understood as well as we do the importance and the permanency of the impressions early made on the minds of children. Hence they not only exercised a care which we might profitably imitate for the health and physical nurture of their children, but also strove to control the home influences to which they should be subjected by mothers and nurses. It was the fashion with wealthy families to secure Spartan nurses, because it was believed that the nurture which they gave, the discipline they enforced, and the example they offered for conduct, had the most salutary effects on their nurselings.

In Athens, as everywhere, a highly important part of the early education of children,—a part through which they unconsciously acquire their native tongue, become familiar with the more obvious properties of the nature which surrounds them, and learn to conform their action to imperative natural laws,—was gained through *plays*, which says Plato, “children left free to act almost invent of themselves.”

It is interesting to note the identity of these plays with those now in vogue. The Greek child of the classic ages made a racket with rattles and drums; rode hobby horses; imitated its elders with dolls and play houses and miniature wagons; gained quickness of eye and strength and dexterity of aim by throwing

balls and trundling hoops; studied elementary physics with tops and see-saw; and acquired physical vigor by hide and seek and games to catch its play-mates, the same games which in spite of all modern inventions of plays for children, are still most popular with the little Tom Browns of to-day. Unless we assume what seems hardly probable, that these sports have been transmitted in unbroken succession from age to age, it appears that a kind of infantile instinct guides children perennially to the same forms of amusement that are best adapted to afford them the training that they most need at that age.

Apart from their plays, the physical education of young children was chiefly directed, in the words of Plato, "to overcome even from youth what falls upon us in the shape of terrors and fears."

The regular physical training or gymnastics of older boys was given by masters called *paedotribes* (*παιδοτριβης*), i. e., boy trainers, who received fees from their pupils for their services, under the oversight of other masters termed gymnasts, who prescribed the appropriate exercises.* These lessons were given in establishments called *palæstra* and *gymnasia*, of which some critics suppose that the former were intended for boys and the latter for men. By the Athenians, gymnastics were intended not only to give courage and bodily dexterity as a training for war, but also to insure physical health and to impart grace and harmony in the use of all the bodily powers. The duty of the *paedotribe* was to teach graceful and becoming behavior as well as skill in gymnastics; and

* Smith, Dictionary of Greek and Roman Antiquities—Article *Gymnasium*.

in the most violent exercises care was taken that the movements should be as well harmonious as effective.

The chief exercises were running, leaping, wrestling, boxing, and the hurling of the discus and the spear, the Greek pentathlon or five-fold exercise. All these exercises fitted indeed for martial pursuits, but they were practised in Athens with a larger purpose than in Sparta, and in a different spirit. Dancing was taught as a part of gymnastics, for its efficiency in making movements gentle and graceful, and because of its use in acts of religious worship. Boxing was taught only to the older boys, but it was evidently quite different from what is now practised. Since the chief objective point was the *ears*, there could have been no striking from the shoulder. The ability to swim was seemingly expected of every Grecian boy, yet we have no evidence that it was taught as a part of gymnastics. Probably the boys learned this art from each other, much as boys do now, without the aid of any regular teacher.

Plato recommends that women as well as men should be trained in gymnastics and taught to handle warlike weapons, that "standing up nobly for their country while it is laid waste, they may, if able to do nothing more, at least strike terror into the foe when they are seen drawn up in a kind of array." In this he was doubtless inspired by the example of the Spartans, whose young women, as we have seen, had a careful physical training which, as Plato must have observed, made them greatly superior to their pale and secluded Athenian sisters.

The results of Athenian physical training were by

no means limited to the objects which it had immediately in view,—the forming of men healthy and vigorous in body, capable of enduring the hardships of war and courageous to withstand its terrors, and expressing ease and grace in all the movements of a figure beautiful because symmetrically developed; the exercises of the gymnasium doubtless had also, as an indirect effect, a great influence in determining that remarkable development of the plastic arts in the direction of sculpture which has made Athens famous in all succeeding ages. These exercises not only furnished the finest models of physical perfection to a people unusually gifted with artistic sensibility, but they familiarized the artist with every variety of the language of muscle in the various modes of physical exertion. The nude state of the gymnasts in the exercises of the palæstræ afforded opportunities for this kind of familiarity such as no modern artist can have; and to this we may reasonably attribute much of the Grecian excellence in sculpture.

It is a great pedagogical merit of Aristotle that he founds moral education on the habitual expression of right feeling by a corresponding course of conduct, and that he would have the habituation to right acts so early begun and so wisely directed that when the youth approaches maturity, his reason may give a full and free assent



ARISTOTLE, 384-322, B. C.

to his habits. Thus he would give effect to moral teaching by moral habits, and a value to moral precepts by the free assent of mature reason to those habits.

Aristotle's wise idea, which twenty centuries later was emphasized by Locke, doubtless had in its day much the same fate as Locke's, finding few parents or teachers to carry it out in its full extent; and yet, apparently, every branch of Athenian education was conceived to have its bearing on the development of character.

Even gymnastics was rightly thought to have its moral aspect; since, in bringing all bodily capabilities under the control of the will, it both fits the body to obey the behests of reason, and strengthens the will to control the movements and inclinations of the soul. That part of gymnastics which pertained to dancing had an especial moral significance, since it was not designed as in our times to become merely a means of graceful social recreation, but to be used in religious ceremonies for the worship of the gods.

In like manner, the means of intellectual education were to a considerable extent used with a decided moral purpose. They consisted largely, as we shall presently see, in reading and imprinting on the memory the descriptions and praises of heroes and sages contained in the poets, by which the boys were stimulated to imitate the virtues and to emulate the deeds which they admired.

Says Lucian in the second century A. D., after mentioning the preliminary instruction in reading and writing, "When now the boys have made due progress

in these, we dictate to them the maxims of the sages, and the lines of poets who have embodied in verse the deeds of our old heroes or other useful things, that they may be more easily impressed on the memory."

The literature of the Greeks too was largely saturated with their religious beliefs, and the needful accessory explanation of allusions to their mythology was to the Greek child a religious instruction analogous to what would be given by using a study of the Bible. This was especially true of the Homeric poems; and it was because of his keen perception of the abiding influence on morals exerted by early familiarity with the poets, that Plato in the "Laws", and more fully in the "Republic", insists on a careful discrimination as to the portions of poems that should be used in the education of youth.

But of all the means for moral education, the greatest efficiency was by all the Greeks ascribed to music. It was thought to bring order and harmony into the feelings, to dispose the soul to virtue, and to fire it with courage and patriotism. Doubtless the Greek music, like the instruments by which it was accompanied, was of a simple and elevating kind, devoid of those complex harmonies which in modern music often tax the analytic intellect more than they touch the heart. The songs also which were set to these simple melodies were, we know, mostly of a heroic or patriotic and religious character. Appealing thus by words to the strongest sentiments of the Grecian people, in whom it powerfully aided to foster such sentiments, and speaking directly to the heart through the simple structure of its melodies, it is not so difficult as some

have seemed to find it, to account for the influence in shaping character which philosophers like Plato and Aristotle ascribed to music; nor to understand why Plato should have thought that by establishing unalterably by laws the songs and melodies of a state, the legislator might give permanency to its political institutions. One who lived in a much more recent age than Plato and amid very different surroundings, has expressed the same idea in the well-known saying, "Give me the making of the songs of a people and I care not who makes its laws."

When we add to all this, that the chief laws of the state were imprinted in the memory of the youth that they might know what was expected of good citizens, we shall find reason to confess that the Athenians fell little short of the most advanced nations of Christendom in their care for the moral training of their children.

An examination of the means used by the Athenians in intellectual education, should serve to modify in some degree the stress which we of to-day are inclined to lay on the study of foreign languages, as an almost indispensable means for the attainment of high culture, and for the mastery of the vernacular. They knew no language save their own; and yet through the mastery of this by the thorough use of its own resources, their poets and orators, their philosophers and historians, attained such excellence as still to be considered by many as well-nigh unattainable models of literary perfection; nor can we deny to them the possession of an extraordinary culture, though they disdain as barbarous all languages and literatures save

their own. Still it would be unsafe to generalize too far from this one shining example; for we shall see, some centuries later, how deeply the descendents of these same Greeks degenerated, from lack of intellectual intercourse with other races and of its attendant stimulus.

The necessary first knowledge of reading was gained by the Athenian school-boy by a method which has but recently ceased to be used by us, that is by learning the alphabet first, then forming syllables from the letters, and finally advancing to words. This method was however less unreasonable in a language like the Greek in which the letters represent fixed sounds, than in English, which has many more sounds than characters to represent them, and which presents besides extraordinary irregularities in spelling.

When the boy had mastered the elements of reading, in which special care was given to securing nicety of pronunciation, correct use of the accent, and melody of intonation, he proceeded to what we may properly term the study of the choice literature of the language, the works of Homer and the cyclic poets; of Hesiod; of Solon, who was poet and philosopher as well as lawgiver; and of others of the ancient sages from whose works selections were made for school use.

On account of the scarcity of books, there was large use of memory and of oral teaching, the teacher dictating and explaining what the boys were to write and learn; and there can be little doubt that much of the best literature of the Greek race was thus securely fixed in the minds of the boys, with great corresponding benefits to taste and morals, as well as to intelligence.

Not only was religious teaching interwoven with this instruction in the works of the poets and sages, by way of explanations of the mythology, especially in the poems of Homer, who was, according to Greek ideas, an inspired teacher of morals; but interesting evidence exists that objective aids like pictures were used to insure a proper realization of what was taught.

The Greeks had become skilful in the literary use of their language, and had brought it to a high degree of perfection, long before they began to trouble their heads about its anatomy; for the grammatical, or more properly rhetorical structure of the Greek tongue, did not become a subject of school study until the fifth century B. C., when it was introduced by the sophists, and the first formal grammar of the language was prepared by Dionysius Thrax, an Alexandrian scholar, about 80 B. C.

The art of writing was taught by the use of tablets covered with wax, in which the letters were traced with an iron pen called a stylus, having one end pointed to incise letters in the wax, and the other flat to obliterate badly written lines. The copy written by the teacher was first retraced by the pupil to become accustomed to the necessary movements, and then imitated below. The Roman Quintilian, speaking of the same mode of teaching writing which prevailed at Rome, suggested that the copies should be incised in a hard surface to facilitate the learning of the movements by the pupils.

From an expression of Plato in the "Laws", it would seem that rapid or ready writing was not considered to be within the scope of ordinary elementary

education. The copying of books was done chiefly by slaves on papyrus with reed pens, and it is not impossible that ready writing may have been considered slavish. In much later times persons have been known to pride themselves on a cramped and illegible penmanship, as though it were a mark of intellectual superiority, or of a soul elevated above mere mechanical dexterity.

Arithmetic, or more properly the art of reckoning, was taught on a system of fives with the aid of the abacus, which had been introduced from Egypt, and with a great use of the fingers bent in various ways. Reckoning was in general carried no farther than was absolutely necessary for the usual affairs of life.

The Greek notation was too cumbersome to encourage any other than the most needful use, though it was much better than the Roman notation in this respect. It consisted of the use of the letters of the alphabet separated into three groups of nines, one character being interpolated in each group to make the requisite twenty-seven, the characters in the first group standing for the units, in the second for the tens, and in the third for the hundreds, while a short vertical line drawn under a character multiplied it by a thousand. Thus α' =one, β' =two, κ' =20, ς' =6, ϕ' =90, τ' =300, δ_{\perp} =4,000, λ_{\perp} =30,000, etc.

Plato thought that to the art of reckoning should be added those principles of geometry which apply to common measurements, and so much of astronomy as is implied in a correct knowledge of the days, months, seasons, and stars, since "it is shameful for the masses not to know these things." Beyond

this he evidently did not think these studies should be carried save by choice spirits; though he had so high an estimate of the value of geometry for philosophers that he is said to have made a knowledge of it a requisite for admission to his lectures.

Such then were the few and simple means of education employed by the Athenians to the middle of the fifth century B. C.; gymnastics for the body, including dancing and graceful deportment; for the soul, music, the chanting of the old heroic, patriotic, and religious hymns of the Greek race, accompanied by the notes of the lyre and flute; for the intellect and taste, reading and a little writing, the simplest and most practical elements of arithmetic, geometry, and astronomy, and a most enviable intimacy with the greatest works in their national literature.

This seems a meagre scheme of studies to produce such eminent results in national character and artistic accomplishment as had already distinguished Athens before and during the age of Pericles; yet it may be questioned whether the small number of the branches then available for school culture may not have been positively advantageous, by compelling a more intensive use of what they possessed, and especially of music and the treasures of their vernacular literature.

Amidst the multiplicity of subjects which are crowded upon the educator of to-day, and which are pertinaciously urged upon his acceptance by an unthinking public and an eager press, there is always danger that he may be beguiled into thinking that since there are so many useful and interesting things to know, school children should make the attempt to

know something of them all. And so languages and mathematics and sciences and histories and the tools of various trades, are likely to be thrust immediately upon the immature intelligence, which needs to be developed quite as much as furnished,—with the inevitable result of a superficial jumble of half-formed notions and few or no clear ideas; mental powers so frittered away in aimless and uncompleted efforts that no definite mental habits are formed; taste and judgment weakened because no time is given for the proper use of either; formal examinations taking the place of culture; and finally the body neglected and the development of character overlooked in the vain chase after a shallow and useless universality.

From such dangers of over-crowding with the consequent mental indigestion and thwarted development, Athenian school-boys were free; and to this fact may have been due in some degree the purity of taste and the strength of certain intellectual traits by which the Athenians as a people were distinguished.

The special characters of the Athenian *common* education may be boldly presented, and at the same time usefully reviewed, by quoting from Karl Schmidt (i. 572) the striking passage in which he contrasts Athenian with Spartan education.

“The education of the Spartans, by which just as much constraint was put upon the individual, as in Attica freedom was permitted to him, was a general, public, and uniform one, in which also the maidens shared; the education of the Athenians was national only in its import, whilst in its form it essentially emphasized diversity and individuality.

“ In Sparta the physical tyrannized over the spiritual education; in Athens a proper equilibrium between body and spirit was the end for which they strove.

“ In Athens, the woman was reared more in the privacy of the home than in Sparta; and consequently public female education was cared for more in Sparta than in Athens.

“ In Sparta, education was the care of the state, and was therefore directed by the state for the state; in Athens education was a private matter supervised by the state only in a general way; hence in Sparta it was strictly limited by law, whilst in Athens, not hampered by laws, it developed itself freely in all directions.

“ Sparta limited instruction, aside from gymnastics, to music and the sharpening of the judgment; Athens strove by its scientific instruction, and especially through exposition of the classic writings, to sharpen the powers of thought, to waken the sense of beauty, and to inspire a feeling for the noble.

“ The Spartan music in which the youth were instructed was quiet and elevated; the Ionic, to which the Athenians were inclined, was of a more exciting character. Gymnastics at Sparta aimed especially at endurance and physical strength; at Athens, it strove to attain harmony and strength and agility.

“ Education in Sparta promoted blind obedience; in Athens the individual judgment of the youth was developed. In Athens a part of filial duty was based on gratitude; in Sparta, all duty of the child to his parents consisted in obedience.

“ The Athenian education was one which developed

with the development of the people; the Spartan remained fixed and unalterable. Hence in Sparta there was only one education; in Athens there were an old and a new education. The Athenian education strove, by the harmonious development of all the powers, to make of the youth a beautiful whole, a moral work of art; and the subsequent practice in public life advanced the work of education, generated self-confidence, kept all the powers in full tension, and promoted keen observation and prudent judgment of persons and circumstances, and, in general, energy and worldly wisdom. The deeper moral ideal of man, and, with this, of education as a genuine religious culture, the Athenian did not and could not know, since he viewed all spiritual as well as physical life only in the light of the æsthetic idea."

This higher humanitarian ideal of man, of his destiny, and of his consequent education for an earthly career which should be a fit preparation for an immortal life, still awaited, not merely the coming of Christ, but the full development of the consequences of his teachings.

CHAPTER IX

THE NEW OR HIGHER EDUCATION IN ATHENS

During the fifth century, B. C., the number of desirable studies in Greece, but more especially in Athens, was somewhat increased by reason of the more complicated relations which were introduced into their political life through the substitution of democratic institutions in place of the old aristocratic polity. These new branches however had exclusive reference to the higher training of the comparatively few élite and more ambitious youth for a life of political and social activity; and so they wrought no change in that elementary education which was given to the many.

These more advanced subjects, which ultimately expanded into a true university system, will claim our attention in the present chapter. They were such as were concerned with a more precise study of the relations of man to the state, to his fellows, and to the supreme good, giving rise to politics, to ethics, and to philosophy; or with the means of sifting ideas and arguments in order to discover their truth or their falsity or to confound an adversary, whence sprung dialectics; or with aiding men to attain the power of ready, effective, and convincing speech in the presence of a multitude, whence rhetoric arose.

To teach this new class of subjects, a new set of

teachers was needed, with larger acquirements and a wider range of experience than the old Athenian schoolmasters, and a class called sophists arose to supply the need. These men, who for many ages have had a peculiar stigma attached to their name, which in most European languages has embodied itself in words of derogatory meaning, have at length found a brilliant apologist and defender in Grote, who in his *History of Greece* (Chap. 67) depicts them as at first migratory teachers of subjects needed for social and political life, who "were prized all over Greece, travelled from city to city with general admiration, and obtained considerable pay."

Bringing to their vocation "a larger range of knowledge with a greater multiplicity of scientific and other topics" than was then common, possessing "a considerable treasure of accumulated thought on moral and political subjects", and having "not only more impressive powers of composition and speech,—but also a comprehension of the elements of good speaking", their aim was to make men ready and practical as citizens under conditions such as then existed in Greece, able not only to think and act appropriately, but to express their opinions effectively in public assemblies.

"Their direct business was with ethical precept, not with ethical theory: all that was required of them as to the latter was that their theory should be sufficiently sound to lead to such practical precepts as were accounted virtuous by the most estimable society in Athens."

They imparted a useful smattering of many subjects,

such as politics and ethics, science and philosophy, of which men needed to know something that they might make a creditable figure in public life; and gave a special training in rhetoric as an art of effective speaking, and in dialectics, which answers to what we term logic. The latter art, which men like Socrates, Plato, and Aristotle employed to discover truth and to reach what they considered the essence of subjects, the Sophist used to make men ready in debate and dextrous to answer and confound opponents.

It may readily be seen that such a training furnished weapons which could be used for bad purposes as well as good, and which in the hands of unscrupulous men, or even of good men intent only on immediate results, could easily be employed to obscure truth and to make the worse appear the better reason. Doubtless in Athens the art of persuasive speech and dextrous argumentation, acquired through the teaching of the Sophists, was often perverted to improper uses—as where in the world's history have such arts not been liable to misuse? This fact, together with the superficiality of their teachings, which aimed only at imparting knowledge immediately usable, gave occasion to philosophers like Plato, themselves profound but rival teachers, to attack both them and their system.

Undoubtedly also the fact that the Sophists exacted for their services fees which were often very considerable, added bitterness to such attacks, since men like Plato and Socrates considered this a desecration of the office of moral teachers; and aided to fix a stain upon a class which held in its ranks many high-

mind and useful men like Gorgias and Isocrates, who were pursuing a calling for which there was at that time a large demand. This last subject of reproach would have no weight in our days; for no one for many ages has thought that higher teachers lowered the dignity of their calling by accepting payment for their services, or in other words, that no one but persons of independent fortunes should presume to teach young men.

Such is an outline of Mr. Grote's defence of this interesting class of higher teachers, which I have given not only because it seems reasonable in itself and pertinent to our subject, but also because a special pedagogic interest is attached to the efforts of these much-vilified men; since the more extended scheme of studies which they had done much at least to popularize, passed in the next century into the hands of men of a more profound though speculative genius, and by them was wrought into a form in which it became the basis of the first University system of education. It is well therefore to vindicate the origins of so important an educational factor from any unmerited reproach.

The men of genius to whom we have just alluded were first Plato and Aristotle, followed after a few decades by Zeno and Epicurus, each of whom founded a philosophic system that was represented in the University when it assumed a somewhat settled form. The old gymnasias, the Academy and the Lyceum, which had become recognized places for social meetings of citizens and for the interchange of opinions, were utilized by the great teachers also for their discourses.



PLATO, 429-347, B. C.



ARISTOTLE, 384-322, B. C.



ZENO, 342-270, B. C.



EPICURUS, 342-270, B. C.

Thus Plato lectured and questioned in the groves of Academe. Aristotle (see page 119) paced back and forth followed by his auditors in the walks of the Lyceum, whence his school came to be called the Peripatetic, i. e., those who walk about. Epicurus taught in his own garden at Athens, whither crowds flocked to hear him from all Greece and from Asia Minor. Finally Zeno established his place for teaching in a porch or *stoa*, whence his disciples were called Stoics.

Plato first set the example of the endowment of teaching, by the gift of his two plots of land to his

favorite pupil, Spensippus, while designating him as his successor. Other great masters also named their successors, with or without endowment; and thus four systems or schools of philosophy arose, the heads of which at first named their successors, but later the head was chosen by the disciples. The practice of endowment spread in later times, and a university system gradually developed itself, in which the dominant studies were rhetoric and the four schools of philosophy, these studies being evidently pursued in the same spirit and for the same purpose that actuate the mass of university students of the present day.

Rhetoric, which was divided into theoretic and practical rhetoric, began with the study of Greek literature, both poetic and prose, and passed thence to the technique of expression and to the practice of careful writing.

The four schools of philosophy limited themselves each to teaching and expounding the doctrines of its founder, but unfortunately without imitating his originality, or attempting to modify in the least what the master had taught. Hence the tendency of philosophic teaching was to promote rather the acceptance of a settled body of doctrine, than a truly philosophic freedom of thinking on great subjects.

Up to the Christian era, the schools were wholly independent of the state, and were supported by endowments or by the fees of students. Somewhat later, the Roman emperors established chairs of rhetoric and of politics the salaries of which were paid by the state, and they not unfrequently interposed in filling such

places.* According to Gibbon, the emperor Hadrian in the 2d century A. D., founded a splendid library for the university.

The head of the university had the title of sophist, from which it would appear that no odium then clung to that name. Besides the professors, there came to be large numbers of tutors living by fees received from students. Among the various teachers sharp competitions for numerous hearers arose, in which the students riotously participated, forming societies whose chief bond of union was adhesion to some teacher, and contending with each other for new-comers, whom they "rushed" for their favorite tutor or professor. Karl Schmidt (i.865) gives the following interesting account of these student societies, and of some student usages, derived from authors of the last centuries of antiquity.

"They were called corps, fraternities (*φρατρίαι*) etc., and had a senior at their head whose duty it was, at the beginning of the school year, to march to the Piraeus at the head of his corps, to take charge of the freshmen arriving from Egypt and Pontus, and to win them to his fraternity. Such fraternities were usually made up, not so much according to nationality as from adherence to certain teachers. Those students who entered any fraternity were bound to attend on a certain prescribed teacher. From the nature of the case, there was not lacking rivalry among the teachers as well as among their students."

After giving a curious example of two noted rival teachers who were constrained to have their private

* For the mode of filling professorships see Schmidt, 4th ed., i.869, 877.

lecture rooms that they might be secure from the turbulence of the opposing factions, and whose adherents even came to blows in their zeal for their favorite professors, our author remarks: "This kind of life and conduct reminds us of the conditions of the middle ages and of modern times. Even many details of the present student customs have their origin in antiquity. Thus we hear of tossing freshmen in blankets, and of all sorts of singular usages at initiations, of the debts of students, of the collection of dues by scouts, of poor students who were supported by Athenian citizens," and other things of like character, showing how little youthful human nature has changed in the lapse of centuries.

The students were distinguished by a college gown, the wearing of which seems to have been a privilege conferred only by the Sophist. The usual time of residence at the university was from five to eight years; but there were no prescribed courses or degrees, the system being wholly elective and voluntary. The fewness of the subjects then available for higher instruction rendered this lack of definite system less troublesome than it would now be; but there is abundance of evidence that there was much idleness and dissoluteness on the part of students, doubtless due in part to the lack of any oversight or any tests of progress—though from a passage in Plutarch it would seem that examinations at the completion of studies were not wholly unknown, and that these consisted in a display on the part of students of how skilfully they could use the knowledge they had gained.

Other sources of disorder arose from the fact that

in the schools there were no limits of age, no rule as to numbers of studies, no enforcement of attendance on anything, and no discipline save the little that was possibly exercised by archons elected for brief periods by the students themselves. In short, we have here an example of "freedom of teaching and freedom of study" in its purest form. Reliance was evidently placed on the interest of the great body of students in doing that for which they visited the university; and it is probable that this was sufficient to hold the large majority of the students to their duty. A small but disorderly minority can easily make itself strikingly prominent, whilst the great body of quietly studious men attracts but little attention.

There were, besides the fraternities, students' clubs, which, from the names of two of them, the Theseids and the Heracleids, may have had some aristocratic or possibly some political significance: they probably had some analogy with the students' clubs in German universities, rather than with the secret fraternities so well known in American colleges. The unpleasant attentions paid to freshmen have already been mentioned in the quotation from Professor Schmidt: apparently they were not of so rough and brutal a nature as the ceremonies called "deposition", which von Raumer describes as prevailing in the German universities until comparatively recent times.

Besides the clubs of students in general, there were endowed philosophic clubs of the four schools of philosophy, which met at stated periods, usually once a month, for grave conversation over a frugal supper; but it is said that at least some of them finally degen-

erated into occasions of riotous festivity quite unbecoming to philosophers.

The university of Athens was celebrated throughout the civilized world of its time, and attracted ambitious youth from every quarter. It was long the university city of Rome, which had no institutions for the higher learning until near the close of the first Christian century; and many of the fathers of the early Christian church received their literary training there or at Alexandria.

During the early centuries, other higher institutions of less note, which deserve at least to be named here, were spread along the shores of the Mediterranean by the influence of the Greek spirit,—at Marseilles, at Rhodes, at Tarsus and Berytus, and, greatest of all, at Alexandria. The great university and famous library of Alexandria, founded and encouraged by the Greek successors of Alexander, had a duration of more than nine centuries, from 298 B. C. to about 650 A. D. This school “was regarded as the university of progress, the laboratory of positive science, in contrast to the conservative and literary Athens.”* It was especially famous for its schools of medicine and mathematics, and for the relative freedom and freshness of its philosophic thought at a time when all originality of thinking had ceased in Athens.

The university of Athens was finally suppressed by Justinian, 502 A. D.; after a duration of about eight centuries, reckoning its origin, as we may from the time of the great Athenian philosophers.

After this survey of Athenian education in both its

* Mahaffy—Old Greek Education.

elementary and its higher forms, we are entitled, I think, to say that education owes to Athens a two-fold debt: first of all, because it has presented to us an example that has never since been equalled of what can be accomplished by a consistent education in the physical and æsthetic development of an entire people; and second, because, by developing the various branches of knowledge, and by organizing a system of education suited to the higher as well as the lower wants of man, and ranging from the simplest elements to the highest subjects then within the reach of the best minds, it has created the principles on which later the Roman system of schools was built up; and thus through Rome has introduced to modern nations those forms to which they must recur when they desire to effect beneficial changes, whether in the aims, the means, or the methods of education. Still other items of indebtedness may appear as we survey in succeeding pages the educational services of some of the great Grecian thinkers.

USEFUL WORKS OF REFERENCE FOR ATHENIAN EDUCATION

- K. Schmidt.—*Geschichte der Pädagogik*, Vol. I, 4th Ed.
 Grote.—*History of Greece*. Especially chapters 37, 67, and 68.
 Plutarch's *Lives*—Solon.
 Plato.—*Republic*, and *Laws*.
 Aristotle.—*Politics* and *Ethics*.
 Xenophon.—*The Memorabilia*.
 Martin.—*Les Idées Pédagogiques des Grecs*.
 Davidson.—*Aristotle and Ancient Educational Ideals*.
 Mahaffy.—*Old Greek Education*.

CHAPTER X

PYTHAGORAS AND HIS SCHOOL

It is the duty of the historian of education, not merely to describe the systems for training the young which have been in vogue amongst the historic peoples, and to emphasize the fundamental ideas of which such systems were the practical embodiment; but also to take careful note of whatever prominent educational experiments were made, whatever striking methods of imparting instruction were devised, and whatever well-considered views on education were expressed,—views which though their own age might not yet be ripe for their reception, may yet be of value in the history of educational thought.

Greece can afford us examples of all three of these matters of pedagogic interest: of the first, in what may correctly be called the pedagogic experiment of Pythagoras in his school at Crotona; of the second, in the method which was practised by Socrates and is enduringly linked with his name, and also in the methods which were used by Aristotle in his researches and one of which he developed in scientific form; and of the third, in the educational theories enunciated by Plato and Aristotle, not to mention Plutarch, who was of a much more recent date, and who was not so exclusively Grecian in spirit. In the present chapter, we will consider the School of Pythagoras.

Although many things in the career of Pythagoras are not reliably known, as is natural in a matter so remote in point of time, and although not a few of the incidents that are reported of him have a mythical look from the great reverence in which he was held by his disciples, yet the matters which are essential for this brief sketch of a remarkable school have a good degree of probability. They are derived from the histories of Grote, Thirlwall, and Wm. Smith, and from the eloquent but somewhat lengthy account of Pythagoras and his doctrines in the recent revision of Karl Schmidt's *Geschichte der Pädagogik*. Zeller's *Pre-Socratic Philosophy*, Vol. I. also has a destructive criticism of much of the Pythagorean fable.

Although the precise date of the birth and death of Pythagoras is uncertain, it is probable that his career was included between the years 580 and 500 B. C. Born in Samos, educated in music and the poets by Hermodamus and in natural history by Anaximander,



THALES, 640-546 B. C.



PYTHAGORAS, 582-500 B. C.

and encouraged by the aged sage Thales to study in Egypt, he stopped on his journey thither at Sidon, where he was indoctrinated by the Phœnician priests

in the mysteries of their religion, and in their speculations about nature and its phenomena.

He next resided, it is supposed, twenty-two years in Egypt, where he was received into the intimacy of the priesthood, and like Moses became learned in all the wisdom of the Egyptians. As well their religious views and speculations, as the sciences for which Egypt was then famous, were said to have been revealed to him, and the influence of these is thought to be apparent in some of the Pythagorean doctrines. He is thought also by some to have enlarged his views of science and religion by visiting Persia and Mesopotamia, and even India.*

Returning to his native island, he found the condition of affairs little in harmony with his purposes, and hence he fixed his abode at Crotona, in the Greek settlement of southern Italy, where he founded the school which we are to describe. He is described as handsome and imposing in appearance, gifted with rare and impressive eloquence, and glowing with religious enthusiasm and with the zeal of a reformer. These gifts and the fame of his travels and of his learning, drew to him crowds of admirers, whom he is represented as addressing in separate assemblages, youths, children, citizens and women, urging upon them the moral duties befitting their stations, and bringing about such a reform of manners as to introduce a kind of golden age of virtue in all southern Italy.

The violent and disastrous close of his school through

* Zeller, Vol. I of his "Pre-Socratic Philosophy", shows that no reliance can be placed on the accounts of the early life and travels of Pythagoras. His visit to Sidon and Egypt is more probable than other travels ascribed to him.

a popular outbreak gives strong reason to doubt the extent of the reform that is attributed to him. Probably it was limited to the aristocracy, with whom his social and political ideas seem best to have harmonized. From this class probably were drawn the disciples for the school which he established, and the entire influence of the school was alleged to be aristocratic.

The instruction that was given was twofold in character; first by public lectures given to his older adherents many of whom were business men or magistrates, to whom he discoursed on morals and government, on the immortality of the soul and retribution after death, and on other subjects of analogous character; and second the instruction that was given in the school proper, which was what we of to-day should call a boarding school.

The students were lodged, it is said to the number of three hundred, in separate lodging houses which surrounded a hall in which the instruction was given. The expenses were paid out of a common treasury, into which each one put on entrance a larger or smaller sum according to his ability; and, in case he did not make good his place in the school, a just amount was returned to him when he departed. This school fund was managed and expended by the young men under the oversight of Pythagoras; and by means of the management of the school expenditures, he endeavored to inculcate economy, unselfishness, a community of interests, and a sentiment of complete equality.

The government of the school, which had a like purpose, was the expression of his idea that "friendly companions should have all things in common"; and

the organization was intended to be that of "a great family, based on moral equality and grounded on complete harmony of thought, feeling, and will".

To make such principles of organization and such a mode of government possible, great care was needed in scrutinizing the character of those who should be admitted to the school. Pythagoras relied much on his knowledge of physiognomy; but besides this, all applicants were carefully examined as to capacity—for Pythagoras did not believe in wasting time to remedy the niggardliness of nature,—as to behavior towards parents and friends, whether they were given to laughing or empty chattering, how well they comprehended what was said to them, and whether they were fond of learning and amenable to discipline. It is very evident, if all this was true, that Pythagoras did not intend to open a reformatory for corrupt boys, nor a training place for well-meaning blockheads; but a school for choice spirits, where they might be prepared for a career of high usefulness, aristocratic indeed, but in the very best sense of the word.

Even when admitted to the establishment after this searching inquiry, pupils had still to undergo a kind of novitiate or probation in the outer circle of the school, which lasted to the end of the formal education, before they were admitted into the select inner circle, where they received instruction from the master face to face, no longer concealed from their sight by a curtain as before, and where they were inducted into the inner mysteries of his doctrine.

For the novices, the first three years were years of silence and purification: years during which were

tested their powers of memory, their zeal for learning, their apprehensiveness for what was said. During these years they listened to the words of the master who, surrounded by his tested pupils, was hidden from their sight by a curtain, silently absorbed what was said, meditated deeply upon it, and abstained from questions even on what they did not comprehend. This probation seems to have been intended to confirm habits of fixed attention and patient reflection, and to fix expectation on what should come later, that the souls of the youth might be more receptive for instruction: it appears admirably adapted to accomplish these purposes.

If the period of novitiate was satisfactorily passed, the young men were received into the penetralia of the school, where they received instruction from the lips of the master, and entered on an independent course of scientific training adapted to their individual differences of taste and capacity; for it was a merit of Pythagoras, and evinces his knowledge of human nature, that at every step of the progress of his pupils he had regard to such differences. They were expected to write what they had heard from the master; to reflect deeply on whatever they had gained; to consider at night what they had learned during the day, after carefully planning in the morning what they should attempt; to express their thoughts and to converse about their studies with their teachers and companions.

Pythagoras believed that the essential results of instruction should reveal themselves in memory, for one knows nothing which he does not remember; in clear-

ness and dexterity of understanding; and in an inquiring mind. His fundamental idea however was to impress a definite, exact, and moral style of thinking, through reflection on the wise maxims of the ancient sages, a reflection which should make clear to the soul all their depths of meaning.

Thus "moral education with him took precedence of scientific, and practical philosophy was valued above theoretical," with religion dominant as the basis for all. Indeed religious observances were so strongly emphasized in this school as to stamp it with a pietistic character analogous to that of Francke's institutions, twenty-two centuries later. Three times daily the pupils were to offer sacrifices to the gods, and in all things to cultivate habits of moral thoughtfulness.

All things desirable, religion included, were to be made habitual, for he thought habit the weightiest factor in education. "Choose," he says, "for thyself the best life, and habit will make it pleasing to thee."

His method of teaching had the crowning merit that it demanded concentrated attention and the most complete self-activity on the part of his disciples. It was usually in the form of brief maxims presented to the young men, the deeper meaning of which they were to discover and to apply in the development of their character. These maxims, in accordance with the religious tone of his character, were mostly moral and religious; e. g. "The strength of the soul consists in temperance;" "No one is free who does not in all things rule himself;" "It is cowardly to abandon the

post assigned us by the gods before they permit us to do so; ” etc.

Through means such as this, he strove to initiate his pupils into the service of the god of purity and harmony,—the perfect Harmony which was the key note of his pedagogy. His idea of the music of the spheres, inaudible to us only because our ears are dulled by the confused din of this world, has become famous. But, as for the universe, so also for man, harmony is the highest law of life: “the harmony of the spheres should find its echo also in the spirit of man.”

In the system of Pythagoras, the harmony of the body is health; of the soul, virtue. Hence for bodily harmony, he used gymnastics to promote health while putting all physical capabilities completely under the control of the will; sickness as a disturbance of bodily harmony was to be avoided or healed by a proper diet.

Like other Greeks, Pythagoras placed music in the foremost rank amongst the means of spiritual education, from its power in training passions, softening manners otherwise rude and hard, and bringing harmony into the feelings and character; and to him are ascribed certain discoveries in music, especially the universal relations of musical notes.

For strictly scientific education, he preferred mathematics, which he considered the noblest of sciences, not only as fitting for the study of astronomy which he held in esteem, but also as being the best preparation for abstract thought. Some discoveries in geometry are attributed to him, and, as is generally known, he ascribed to numbers many mystic meanings and properties. It is possible that the interest of Pytha-

goras in the mathematics powerfully influenced the Greeks to make their remarkable progress in geometry.

The great aim of the pedagogy of Pythagoras which he embodied in the word harmony, has been so well stated in the words of another, that I cannot forbear to quote the following passages: "At birth he believed that man is very imperfect and inclined by nature to insolence. Through an uninterrupted education, continued during the entire life, he must be freed from his inborn faults and elevated to purity of heart and spirit. His task on earth is to gain true wisdom, wisdom with regard to those subjects which in their nature are unchangeable and eternal. But wisdom has no other end than through her instructions to free the human spirit from the slavish yoke of passions and sensuality, to guide it to likeness with God, and to make it worthy finally to enter the assemblage of the blessed."* To this may be added that evidently his aim was, not so much to furnish his disciples with a large supply of positive knowledge, as to habituate them to deep and searching thought on the weightiest subjects.

Pythagoras preceded Socrates and Plato in expressing the idea that the work of the teacher is too noble to be paid for; since he is reported to have said: "Those who permit themselves to be paid for this service stand lower than sculptors who work for money; for these work upon inert matter, whilst the teacher should further the efforts of the entire living human nature after virtue and wisdom."

The disastrous termination of this enterprise of

* Schmidt-Geschichte der Pädagogik, 4th ed. p. 536.

Pythagoras has already been mentioned. The institution was always strongly aristocratic in its constitution and sympathies, and thus aroused resentments in a time when the current of opinion in both Greece and her colonies was setting strongly in the direction of democracy. Hence in a successful democratic outbreak, the popular fury was turned against Pythagoras and his followers. Pythagoras is said to have escaped and to have died later at Metapontum, where his tomb was shown in the days of Cicero

It is probable, however, that his removal to Metapontum and his death preceded the disaster to his school. No writings of either Pythagoras or his immediate disciples have been preserved, possibly from the disaster by which the establishment was broken up; all accounts of him and his teaching are of a considerably later date, and hence much of doubt must always rest upon many things which concern this most interesting educational experiment. It has been treated solely in its educational aspects as a school; though I am well aware that historians like Grote and Thirlwall regard it as a religio-philosophic organization or club, having a remote analogy with the order of Jesuits. It is evident that the two points of view have no essential difference; and Grote says of Pythagoras that "he was rather a missionary and schoolmaster than politician."

The predominant character of the institution in either view was educational; and its sole interest to us in this connection arises, not from its philosophic and religious doctrines, which were influential for a long time after the death of Pythagoras, and some of which

have a marked Egyptian coloring, but from its originality as an educational organization, and from the striking character of its reputed pedagogic tenets and methods at so early a period of European history.

Professor Schmidt regards the pedagogy of Pythagoras as Spartan in spirit. Any resemblances to justify this opinion must be derived from the aristocratic tone of the institution, from the life of the members in common, and from the ascetic nature of their discipline. With respect to the first point it needs only to be said that in that age aristocratic opinions were by no means peculiar to the Lacedemonians and Pythagoreans. As regards the second, although the *syssitia* or common table of Sparta bears some remote external analogy with the life in common of the Pythagoreans, yet the differences are sufficiently striking, especially in the regard which was paid by the latter to the individuality of their members.

If we go beyond these superficial resemblances, and look to the essential spirit of the two, the unlikeness becomes very apparent. The purposes for which gymnastics was used by Pythagoras and by the Spartans were entirely unlike. This is equally true in regard to music and to moral training in general; whilst the attention given by Pythagoras to mental development, and the emphasis which he laid upon studies like mathematics, physics, and metaphysics, bear no resemblance whatever to the stolid indifference which the Spartans always displayed to all pursuits not referring to war. The Spartan education looked, not to harmony, but to a brutal one-sidedness; whilst harmony

in its fullest sense was the very key-note of the Pythagorean pedagogy.

It is to be regretted that so much which is reported concerning Pythagoras has a mythical aspect, and that little save the fact of his existence in a certain century and that he founded a peculiar educational establishment, is of unquestioned authenticity. Yet the general idea and plan of this interesting experiment, as here set forth, has about it more of intrinsic credibility than most of the Pythagorean narrations; and while no one is now in a position positively to affirm or deny anything that is reported with regard to it, it has still, even in its problematic form, a high degree of interest in educational history.

USEFUL REFERENCES FOR STUDENTS

Grote.—History of Greece—C.XXXVII.

Davidson.—“Aristotle and Ancient Educational Ideals” p. 57,
—for Golden Words of Pythagoras.

Smith.—History of Greece—C.XIII.

CHAPTER XI

SOCRATES AND HIS METHOD

The life, character, and death of Socrates are too well known to need any mention of them here. Very few men of any age have left on history so vivid an impression of their personality as he; and yet he did not distinguish himself in either war or statecraft, nor did he leave behind him a single written line. The



SOCRATES, 469-399, B. C.

ideas which he expressed on social, political, and moral subjects, in which alone he was interested, though novel and interesting in the 5th century B. C., have been mostly superseded by speculation more complete and satisfactory; but his "power of intellectually working on others", and the *method* by which he brought his ideas to bear upon his hearers, are of unfailing interest to all times, and to teachers more than to any other class of persons.

Two of his devoted disciples, Plato and Xenophon, have given us examples of his method. The former, a great, original genius, doubtless presents the spirit of the method in some of his dialogues in which Socrates is introduced as one of the interlocutors, but

with probably a strong coloring of his own; while Xenophon, a man of great clearness of intellect rather than of philosophic depth, professes to give in his *Memorabilia* the form and substance of the teachings of his master.

The method is the same in the presentation of the speculative philosopher and of the man of action. Both show that the examples by which Socrates illustrated his teachings and tested the comprehension of his hearers, were drawn from the most familiar facts of daily life in Athens, and that he skilfully "varied his topics, and queries to adapt them to the individual with whom he had to deal." Both show that it was of the essence of his methods "that mind should work on mind by short questions and answers, in order to generate new thoughts" in his interlocutors, or to bring former vague ideas into new and more exact relations. Both also show that his method had two very distinct and strongly marked phases, the one positive, and the other negative.

The positive phase, which Socrates himself called the *maieutic*, i. e., the aiding in the birth of ideas, appears in those dialogues in which he develops into distinct consciousness ideas hitherto confused or latent in the minds of his hearers; or, by putting familiar experiences into novel relations, gives a new direction to the entire current of thought. Examples of this may be found in chapters 6th and 7th, Book 2d of the *Memorabilia*, of which one is a charming dialogue on the choice of friends and the means by which they may be gained, while in the other, Socrates teaches a friend how to attach the members of his household

more closely to himself by employing them to relieve his poverty. Chapter 7th, Book 3d of the same work, in which he encourages an able but timid friend to engage in public business, may also be mentioned as another example of similar character; and chapter 10th of Book 3d affords opportunity for a not too lengthy illustrative extract.

“One day visiting Parrhasius, the painter, and entering into conversation with him, he said, ‘Pray, Parrhasius, is not painting the representation of visible objects? At least you represent substances, imitating them by means of color, whether they be concave or convex, dark or light, hard or smooth, fresh or ‘old.’

“P. ‘What you say is true.’

“S. ‘And when you would represent beautiful figures, do you—since it is not easy to find one person with every part perfect—select out of many the most beautiful parts of each, and thus represent figures beautiful in every part?’

“P. ‘We do so.’

“S. ‘And do you also imitate the disposition of the mind, as it may be most persuasive, most agreeable, most friendly, most full of regret, or most amiable? or is this inimitable?’

“P. ‘How can that be imitated, Socrates, which has neither proportion nor color, nor any of the qualities which you just now mentioned, and which is not even a visible object?’

“S. ‘Is it not often observable in a man that he regards others with a friendly or unfriendly look?’

“P. ‘I think so.’

“ S. ‘ Is this then possible to be represented in the eyes ? ’

“ P. ‘ Certainly.’

“ S. ‘ And at the good or ill fortune of people’s friends, do those who are affected thereby appear to have the same sort of look as those who are not ? ’

“ P. ‘ No, indeed; for they look cheerful at their good, and sad at their evil fortune.’

“ S. ‘ Is it then possible to imitate these looks ? ’

“ P. ‘ Unquestionably.’

“ S. ‘ Surely also nobleness and generosity of disposition, meanness and illiberality, modesty and intelligence, insolence and stupidity, show themselves in both the looks and gestures of men, whether they stand or move.’

“ P. ‘ What you say is just.’

“ S. ‘ Can these peculiarities be imitated ? ’

“ P. ‘ Certainly they can.’

“ S. ‘ Do you then think that men look with more pleasure on paintings in which beautiful and good and lovely traits are exhibited, or on those in which the deformed and evil and hateful are represented ? ’

“ P. ‘ There is a very great difference indeed, Socrates.’ ”

This dialogue has been selected for its brevity, rather than for any superiority that it possesses as a specimen of the Socratic *maieutic*. It has however an interest of its own; because at the time when this famous painter was thus made distinctly conscious of the principles of expression and selection that underlie his art, it is probable he was still young and comparatively little known. What influence it may have had

on the development of his remarkable genius, which was especially notable for its command of the visible signs of emotion, can be matter of conjecture only.

The negative aspect of the method of Socrates is that which appears in the dialogues, sufficiently numerous in both Plato and Xenophon, in which he does battle with "the seeming and conceit of knowledge without the reality", revealing pretentious ignorance to itself and thus endeavoring to goad it to the attainment of real knowledge; or analyzing by skilful questions the vague notions attached to some fine-sounding but empty general term, and showing the absurd consequences or even contradictions to which they led, with the purpose of promoting clear and definite ideas on subjects of great social and political importance.

This negative use of his method is called the Socratic *irony*. In reality, as it appears in many of the ironic dialogues, it is not so much irony in the modern sense in which the word is used, as a keenly critical mode of procedure, of which there appears at that time to have been a great need in Athens, where every province of intellectual activity was infested with vague speculations whose sole basis was the shadowy and undefined notions attached to general terms. From such notions, and from the dangers to which they lead, no civilized age or nation is wholly free, as witness the repeated disastrous attempts to augment national prosperity by cheapening money, for a single example; but of such notions, the acutely intellectual but uncritical Athenians in the time of Socrates seem to have had an uncommonly large and varied stock. There is no doubt that the death of Socrates on a criminal accusation

was the direct result of his efforts to dispel such vague ideas; since thereby he roused the enmity of many men, already prominent and powerful in the state, whom he had pitilessly cross-questioned and exposed as ignorant of what they ought to know.

A good example of the negative or ironic method may be found in chapter 6th, Book 3d of the *Memorabilia*, in which Socrates succeeds in convincing Glaucon, the brother of Plato, a youth ambitious of assuming the duties of statesmanship, that he was still ignorant of all the things which a statesman should know. An extract from the beginning of this dialogue will give a good illustration of this phase of the Socratic method.

“ Meeting Glaucon by chance, he first stopped him by addressing him as follows that he might be willing to listen to him: ‘ Glaucon,’ said he, ‘ have you formed an intention to govern the state for us?’ ‘ I have, Socrates,’ replied Glaucon. ‘ By Jupiter,’ rejoined Socrates, ‘ it is an honorable office if any among men be so: for it is certain that if you attain your object, you will be able yourself to secure whatever you may desire, and will be in a condition to benefit your friends; you will raise your father’s house and increase the power of your country; you will be celebrated, first of all in your own city, and afterwards throughout Greece, and perhaps also, like Themistocles, among the barbarians, and wherever you may be, you will be an object of general admiration.’

“ Glaucon, hearing this, was highly elated and cheerfully stayed to listen. Socrates next proceeded to say: ‘ But it is plain, Glaucon, that if you wish to

be honored you must benefit the state.' 'Certainly,' answered Glaucon. 'Then in the name of the gods,' said Socrates, 'do not hide from us how you intend to act, but inform us with what proceeding you will begin to benefit the state.'

"But as Glaucon was silent, as if just considering how to begin, Socrates said: 'As, for example, if you wished to aggrandize the family of a friend, you would endeavor to make it richer, tell me whether in like manner you will also endeavor to make the state richer?' 'Assuredly,' said he. 'Would it then be richer if its revenues were increased?' 'That is at least probable,' said Glaucon. 'Tell me then,' proceeded Socrates, 'from what the revenues of the state arise and what is their amount; for you have doubtless considered, in order that if any of them fall short you may make good the deficiency, and that if any of them fail you may procure fresh supplies.' 'These matters, by Jupiter, I have not considered,' replied Glaucon. 'Well then,' said Socrates, 'if you have omitted to consider this point, tell me at least the annual expenditure of the state; for you doubtless mean to retrench whatever is superfluous in it.' 'Indeed,' replied Glaucon, 'I have not yet had time to turn my attention to that subject.' 'We will, therefore,' said Socrates, 'put off making our state richer for the present; for how is it possible for him who is ignorant of its expenditures and its income to manage those matters?' " And so throughout this dialogue, proceeding from point to point, he shows the young man his ignorance of statecraft, and that "if he desires to gain esteem and reputation in his country, he

must first gain a knowledge of what he wishes to do.”*

The method of Socrates in both the forms in which he used it, presents us with what was certainly a novelty in his day,—a procedure thoroughly inductive in its character, advancing always from the particular to the general, and aiming either to insure clearness and precision of ideas, or to dispel the pleasing illusion that one has a real knowledge of what is embodied in general terms whose import he has never troubled himself to examine, and of which therefore he can give no account. Xenophon (Book 4th, Chap. 6th of the *Memorabilia*), makes this remark on his method: “When he himself went through any subject in argument, he proceeded upon propositions of which the truth was generally acknowledged, thinking that a sure foundation was thus laid for his reasoning; and he used to say that Homer had ascribed to Ulysses the character of a sure orator, as being able to found his reasoning on points acknowledged by all mankind.”

Grote, in his admirable account of Socrates (*History of Greece*, Part 2, C. 68) emphasizes an important result of the Socratic method in the definitions of general terms, of which many examples occur in the *Memorabilia*, and which later were “improved by Plato and embodied and enlarged by Aristotle in a comprehensive system of formal logic.”

Dr. Dittes concisely sums up the characteristics and the aim of Socratic method.† “He did not set out from definitions and principles and abstractions to

* See Fitch's *Lectures in Teaching*, Syracuse edition, pp. 177-181, for questioning and another example.

† *Schule der Pädagogik*, Part 4th, § 12.

deduce from them the concrete phenomena of the world and of life; but from determinate motives and observed examples, to pass from these inductively to concepts and convictions. Hence he did not present to his auditors a ready-made system of his own; but he placed himself at their standpoint, brought them to an exact expression of their opinions, and, if these were correct, he confirmed them, and pushed them to their implications (*maieutic*); but if they were based on errors, he let them pass at first as true, but only to show by their consequences that they were untenable (*ironic*). Socrates strove with special ardor for precise ideas; the aim of his teaching was the eradication of superficiality, and the generation of self-knowledge, reasonable thought, moral conviction, and force of character."

Aside from his merits as the originator of his method, Socrates held some opinions with regard to education, its aim, and its means, which are worthy of remark.

1st. He deemed it an unworthy thing to accept payment for his services in instructing others; and when one of the sophists derided him on this account, alleging that he thus showed that he had no knowledge which in his opinion was of any value, Socrates in his reply put those who take pay for giving instruction on a level with the most degraded of human beings, calling them prostitutes of wisdom; whilst he alleged that he taught useful things to those whom he thought deserving that he might attach them to him as friends, which he deemed the only proper recompense—a species of payment, however, ill adapted for the support of a family.

2d. He was a pronounced Utilitarian, valuing what was learned solely on account of its usefulness. Yet it should be observed that what he deemed useful was such in so high a sense that it differed little from what we would call a disinterested discipline. With Socrates, the practical and useful was to gain habits of self-control and virtue that one might become more a valuable citizen, and to attain clear ideas on social, moral, and political subjects that one might order his conduct aright in all the relations of life.

The Socratic utilitarianism was therefore one which emphasized conduct and character, and which would reject as useless all subjects beyond the elements that did not obviously promote right living. Hence he dissuades his adherents from pursuing such branches as geometry, physics, and astronomy beyond the barest usable elements (Mem. B. 4, C. 7).

Of geometry he believed that it was profitless to pursue it "to diagrams difficult to understand", and that it "was enough to consume a man's whole life, and hinder him from attaining many useful branches of knowledge." Obviously he did not recognize, as Plato did, the great disciplinary value of this branch.

As to physics and astronomy, he went farther, believing that speculations as to their causes and modes of operation were not only profitless but wrong; "for he did not think that such matters were discoverable by men, nor did he believe that those acted dutifully towards the gods who searched into things which they did not wish to make known." This opinion of Socrates will appear less strange to us when we consider that twenty-one centuries later a philoso-

pher like Locke could say in his "Thoughts on Education" (§ 190): "Natural philosophy as a speculative science, I imagine we have none, and perhaps I may think I have reason to say we never shall be able to make a science of it. The works of nature are contrived by a Wisdom and operate by ways too far surpassing our faculties to discover or capacities to conceive, for us ever to be able to reduce them to a science."

The ideas of both these men, which to us, in the light of modern discoveries, seem so strange and almost whimsical, were based on the condition of these sciences in their days, and even more, in the case of Socrates, on the merely speculative methods by which so-called researches were conducted. Yet we have no reason to suppose that, had sciences been ever so advanced, Socrates would have entertained any different opinion of their value as educational means. Wholly utilitarian as were his views, regarding little if at all the disciplinary effects of studies, his ideas were limited narrowly to such positive knowledge as would make a man more efficient as a member of society and the state.

His educational views seem to me therefore to be of little moment, save as they mark a stage in the progress of human thought. But the Method he devised, the modes in which he used it, the precision for which he strove in fixing the import and extent of application of those general terms which must always be man's chief means of conveying his ideas exactly to his fellow-man; and finally the selection which he always made of materials for instruction which were easily within the comprehension of his hearers, in which last

he has never been excelled save by the Great Teacher, —are of enduring interest to all intelligent men, and to none more than to teachers of youth.

USEFUL REFERENCE FOR STUDENTS

Grote.—History of Greece, Part 2d, Chapter 68.

Xenophon's Memorabilia of Socrates.

Plato.—The Socratic Dialogues.

Davidson.—Aristotle, etc. Chapter I on New Education.

CHAPTER XII

EDUCATIONAL VIEWS OF PLATO

Plato, whose long life extended from 429 to 347 B. C., was never married, and hence he had not, like Aristotle, any parental experience to modify his educational ideas. His views therefore are rather those of a philosopher and theoretic statesman than of a father or teacher. He considers education as the most important of the duties of the



PLATO, 429-347, B. C.

state, because he sees its great significance as part of the science and art of politics. The works in which his thoughts on education are best developed, are both political, the *Republic* and the *Laws*. The former contains a highly fanciful and impracticable scheme of class education, as an integral part of his beautiful Utopian dream of a communistic state in which philosophers should rule; the second and later work, in formulating a practical code of laws for a small commonwealth, sets forth the nature of the education which he deems essential to assure the success and perpetuity of a state. Both contain not a few thoughts which

are of unfailing interest to the student of educational history.

With the scheme of the Republic we have to do only in so far as it concerns our present purpose. It is of an education according to classes, the membership of which should be determined not by birth but by merit. The members of the base-metal class, subdivided into husbandmen and craftsmen, are to be trained, each for the special employment for which he is best fitted. Those of the precious-metal, or ruling and warlike class, are to be educated in all that gives strength and harmony to both body and soul. As the condition of unity of purpose and action, they are to have all things in common, not only goods, but also wives and children.

The most promising among them, besides the general education, are to be further trained in the abstract sciences, numbers, geometry, and astronomy, "to compel the soul to use pure intelligence in the search after pure health." This training, by proceeding from the visible and audible to being intellectually apprehended, is to be the preparative for dialectics or reflection, which "gradually draws and leads upwards the eye of the soul" to the attainment of the sublimest philosophic wisdom, and which Plato thus establishes "as a bulwark of moral training,—and a complement of scientific education."

The abstract branches are to be taught in their elements in childhood and youth,—*pleasantly*, "for a free-man ought to learn nothing under slavish coercion." From the age of twenty, the élite youth are to receive until thirty a deep and thoroughly systematic instruction in the same studies, that they may apprehend their

connection with *real*, i. e., abstract being, as the final test of their fitness for dialectics. At the close of this trial period, those finally chosen to be trained as philosophic thinkers and rulers, are to devote themselves for another five years to dialectics, i. e., to pure abstract reasoning on the deepest and weightiest subjects.

Then at the age of thirty-five, equipped with the results of the deepest reflection, and,—to adopt the figure of Plato,—with the eye of the soul trained to gaze unblenched on the resplendent sun of truth, they are to descend again into the dim cave of this world's affairs, to accustom their eyes again to its gloom, and to form true judgments of its shadows, since they have gazed with unveiled vision on the realities by which they are cast, whilst they perform the minor offices of the state and share the dangers of war. Fifteen years of this rectification of theory by practice, brings our philosopher, at the ripe age of fifty, to fitness for his highest duties in ruling the state and preparing others to fill his place, before he departs in honor “to the islands of the blessed”.

The scheme of education presented in the Republic, though glaringly impossible, is at least suggestive of the care which Plato deemed needful to be exercised in the training of those who are to bear rule among men. With him, the selection and training of legislators and officers is by no means to be trusted to the accident of birth or to the chances of popular choice, by which hitherto the course of this world's affairs has been conducted after a tolerable fashion, and seems likely to be to the end. Amongst all the beauties with which the Republic abounds, none is more charm-

ing than the allegory of the cavern to which allusion has just been made, and which, opening the 7th Book of the work, permeates the entire argument like a golden thread, illustrating the dimness of vision as regards their highest interests which characterizes the race of men, and the means whereby alone, in the opinion of Plato, the requisite certainty of apprehension may be gained.

Aside from beauties of illustration and theories of government, the educational doctrines of the Republic and of the Laws are to a large extent similar. Both lay the same emphasis on the necessity and efficiency of education. Both designate gymnastics and music as the proper means therefor, give the same extension of meaning to music, and ascribe to it the same efficiency in shaping souls and "contributing to a pleasure of a happy sort". They insist equally on a careful selection of authors and parts of authors to be taught to youth, though with more detailed statement in the Republic; and they would both have music, when duly selected, established unalterably as the best means of assuring permanency to states.

Both likewise insist that the education of women, at least those of the favored classes, shall be nearly identical with that of men. In both it is assumed to be easily proven that the welfare of the individual is sufficiently cared for when all are so trained that the well-being of the state is assured: men are to be trained for an orderly and virtuous life in the state; they may perish, but the state will endure. Since however the Laws, as the work of his later years, doubtless voices the more mature views of Plato on

the nature and aims of education, it merits a more detailed consideration at our hands, with such incidental references to the Republic as may serve to illustrate a few points more clearly.

We notice in the Laws that the class scheme of the Republic, with its communism and its idea of educating only the ruling military class, has been abandoned, and in its place we have the proposal for universal and compulsory education that has already been quoted (see page 114). It is obvious from these passages that Plato would go as far as the most advanced modern nations in the direction of compulsory education; and that, contrary to Athenian practice, he includes women in his scheme, for the reason, more than once urged, that they constitute one-half of every state, and that the state needs their best services as well as those of men. Also he would have those only selected as teachers of music and literature who are wholly in love with what they teach.

The supervision of the education thus proposed Plato considers “ far the greatest of the chief offices in the state ”; and hence that it should be filled by selecting him “ who is in all respects the best person in the state ”. He is to be at least fifty years of age, and the father of lawful children; and he is to be chosen for a term of five years, by a secret ballot of certain of the magistrates, who vote for him whom they think to be best, in the temple of Apollo, the god of music.

Plato thus defines education: “ A perfectly correct nurture ought to show itself able to give to both bodies and souls all the beauty and all the perfection of

which they are susceptible." To secure the bodily beauty and grace contemplated in this admirable definition, he prescribes free infantile sports, which, he says, when children come together they almost invent of themselves; the avoidance with the young, as well of luxury which renders them morose and irascible as of excessive and rustic servitude which makes them abject and illiberal; and finally the avoidance of all things which might terrify the child, and sow in it the seeds of a timid and cowardly disposition. At the age of six the regular education is to begin with gymnastics, by learning the exercises that prepare for war, in which he would have girls also practised so far as their strength will permit. Music, so far at least as that term includes intellectual culture, he would defer to the tenth year.

With Plato, the purpose of gymnastics is two-fold: to gain lightness and grace of movement while "imitating the diction of the muses" and preparing to join harmoniously in the worship of the gods, the means for attaining which was to be dancing; whilst for promoting health and acquiring strength and suppleness, he would rely chiefly on wrestling, as being most useful for war, to which he adds exercises in the use of all warlike weapons and in military evolutions. He evidently intends that up to the age of ten the school training shall be purely physical, whilst any mental and moral effects that may result from this shall be mere necessary incidents of such a training when properly conducted. He however by no means overlooks such incidental effects as harmony and reverence, temperance and fortitude, courage and self-control, as

likely to result from the practice of gymnastics in both the forms that he recommends.

From the age of ten, literary culture under the comprehensive name music is to be added to physical training. "For learning to read and write," he says, "three years would suffice for a boy ten years old; but to those who are thirteen, three years for mastering the lyre would be a moderate time." But hear this that the youths ought to learn and the masters to teach during this period. "They ought to labor at letters until they are able to write and read; but let us leave out of the account those whom nature has not fitted to become proficient in quickness and beauty within the years enjoined."

He then proceeds to show what portions of literature and what songs should be presented to the young, a subject which he had already treated more fully and with many examples in the 2d and 3d Books of the Republic. His proposal in the latter work amounts to a careful expurgation for school use of the works of Homer, Hesiod, and other esteemed poets and prose writers, in order that, "at an age when whatever opinions they receive are wont to be difficult to obliterate and immovable," nothing may be taught to youth through letters which might lessen their courage or relax their morals; or which, by presenting gods and heroes in any other than the best and loftiest aspects, "might give to boys an excuse for wickedness or a warrant for injustice."

The principles for selection which he suggests are worthy of the consideration of educators in every age. With a like purpose, conceding that the comic

and laughable should be known by well-taught citizens that they may be able the better to avoid what is ridiculous, Plato would have comedies performed only by slaves and hirelings, that their scenes may become contemptible by low and degrading associations.

In addition to the literary contents of the much-including music, he proposes the same elementary knowledge of reckoning, of geometry, and of astronomy which Socrates had recommended to his disciples, urging that these elements ought to be taught to all "as shameful for the many not to know". He also praises the Egyptian method of teaching numbers by an objective procedure and in play.

The higher reaches of the sciences, as we have already seen in the Republic, he would reserve as a preparation of the very best minds for the sublimest reflections. Curiously enough, he altogether omits from both his schemes of education any mention of history, although a knowledge of this so nearly concerns what he has at heart in both treatises, namely how to organize, ennoble, and perpetuate a state. And yet Herodotus, the father of history, and Thucydides, the great delineator of the Peloponnesian war, had already written works which have been the delight of succeeding ages, and which should have attracted the attention of one who strove to be the philosopher of politics.

The idea of the great and pervasive influence of music in the modern sense of the word, which Plato agrees with other Greeks in emphasizing, has already been mentioned. It is most clearly set forth in the Republic, from which a few sentences may here be quoted. "Music and harmony enter largely into the

inmost part of the soul and powerfully affect it, at the same time introducing decorum into conduct and seemliness into the manner of all who are well trained." Such persons "will understand the images of temperance, fortitude, liberality, and magnificence, and whatever are akin to these,—and will despise them in neither great nor small instances, but conceive them to be parts of the same art and study."

Such being the deep influence which this art exerts, "we should be specially cautious about receiving a new kind of music, as endangering the whole (social fabric); for never are the measures of music altered without affecting the most important laws of the state; for it insensibly flows into the manners and pursuits of men; it finds its way into their contracts,—and from contracts it enters with much boldness into the laws and political establishments."

In Book 7th of the Laws, he likewise attributes a similar importance to dances and sports. "Men do not consider," he says, "that the children who engage in new sports must necessarily become men different from those who were trained in the preceding generation; and that becoming different, they will seek a different kind of life; and so seeking, will be desirous of other pursuits and laws; and no one fears lest after this, there come upon states what has just now been called the greatest evil," i. e., the craving for novelties. Hence, entertaining this belief, Plato suggests in the Republic and proposes in the Laws, that sports, dances, and music, both songs and melodies, shall be carefully selected by wise elders, and not only established by law but sanctioned by religion, that they

may remain long unchanged; and thus, by giving the young the idea of something unalterable, may tend to permanence of political instructions. He also, in Book 2d of the Laws, adduces Egypt as an example in point, evidently believing that the great duration of that state is due to this cause. Living as he did in the midst of political and moral fluctuation and change, he seeks anxiously for some counteraction to this instability, and rightly sees it in the correct and consistent education of the young.

To the special means which he proposes, we at the present day do not attach so much importance as Plato did; possibly music and sports affected the susceptible Greek more strongly than they do the practical Englishman or American; possibly, too, caught in the rush of modern life, we underrate the permanency of the influence exerted on our youth by the songs they learn in school, and the games they practice in their leisure hours; but the *principle* on which Plato acts, is true for all times and circumstances, and is one of which the most enlightened modern nations are becoming fully and actively conscious. The principle is this, that none of the impressions made upon the young are trivial and unimportant; that whatever, like music, strongly moves their feelings is especially important; and that whatever is embodied in the education of a nation's youth, is sure to be ultimately greatly influential in the nation's life.

Such then are the chief educational ideas of Plato. They are of great interest, not more from their antiquity and the eminence of their sources, than from the fact that several of them,—such as the necessity

of universal and compulsory education, the need of care in selecting literature for the young, and the importance of beginning any reform of national manners in the schools,—which are of recent introduction into educational practice, originated with the famous Athenian philosopher, twenty-two centuries ago.

USEFUL REFERENCES FOR STUDENTS

Plato.—The Republic, Books 2d, 3d and 7th.

Plato.—The Laws, Books 2d, 3d, 6th, and 7th.

Davidson —Aristotle and the Ancient Educational Ideals.
Book 2d C. 3.

CHAPTER XIII

EDUCATIONAL VIEWS OF ARISTOTLE

Aristotle, unlike his great master Plato, was twice married, and was the father of children for whom he cherished a tender affection. A striking proof of his parental regard may be seen in the dedication of his chief ethical work to his son Nicomaeus, from whom it derives its title. He had also a valuable pedagogic experience as tutor during several years of Alexander the Great, whose valued friend he remained during life.



ARISTOTLE, 384-322, B. C.

Thus both as parent and as teacher he had a preparation for discussing educational questions which Plato lacked; and we should therefore expect to find in his pedagogical views a more practical cast than in those of Plato. In this expectation we shall not be disappointed. Yet he was in full harmony with his age, in finding the supreme significance of man, and the chief worth of education, in fitness for the duties of intelligent and virtuous citizenship. Hence his theory of education forms the conclusion of his treatise on Politics. "We have already determined," he says,

“ what men ought naturally to be that they may make good subjects in a community ruled by laws; the rest of this discourse therefore, shall be upon education; for men learn some things by habits, other things by hearing them.”

In his ethical treatise, to which he refers at the outset of this discussion, Aristotle had assigned as the purpose of action, the greatest possible good of the actor; had said that Politics, which is its chief object, has for its end the greatest happiness of the individual man and of men united in society; and had defined happiness as consisting in a complete activity of the soul in conformity to virtue and reason. Now the tendencies of men to strive after happiness by virtuous action, or to reap misery by sowing viciousness, he ascribes to early habituation. Hence it is not a thing indifferent, he says, to accustom one's self from the tenderest age to act in such or such a way; on the contrary, it is a very important thing, or rather it is everything.* Here then is a firm ethical bond connecting right education, the habituation to righteous action, with the happiness of individual man and with that of men united in a state.

Contrary to Athenian custom, Aristotle would assign the duty of caring for education to the state. “ It is the business of the legislator,” he says, “ to consider how his citizens may be good men, what education is necessary to that purpose, and what is the ultimate object of the best spent life;” and again, “ No one can doubt that the legislator ought greatly to interest

* Ethics B. 2, C. 1.

himself in the care of youth; for where it is neglected, it is hurtful to the city.” “Education should be a common care, and not that of each individual, as it now is, when every one takes care of his own children separately, and each parent in private teaches them as he pleases; but the training of what belongs to all ought to be in common. Besides, no one ought to think that any citizen belongs to him in particular, but to the state in general; for each one is a part of the state, and it is the natural duty of each part to regard the good of the whole. It is evident then that laws should be laid down concerning education, and that it should be *public*.”*

He thus agrees substantially with Plato, though without explicitly declaring that education should be made compulsory. It is evident however from the entire tenor of the passage quoted, that Aristotle had no idea of leaving a matter which he deemed so important, to the carelessness of parents or to the caprice of children. He logically implies compulsion without expressly stating it.

Aristotle recognizes three factors of character in man, (1) nature, i. e., innate capability; (2) custom or habit; and (3) reason. The experienced tutor and observant parent thus directs attention to the fundamental differences in tastes and aptitudes that exist amongst men; he recommends early habituation to right things, since, “as to some dispositions, it avails not to be born with them, since custom makes great alterations, for there are some things in nature capa-

* Politics B. 8. C. 1.

ble of alteration either way, and which are fixed by custom either for the better or for the worse;" and he therefore demands such a training of the immature intelligence, that when the child attains to full self-consciousness, his reason and his feelings may assent to what habit has made easy. Now of these three factors, custom and reason are shaped by education; and "these ought always to conspire in the most entire harmony with each other; for it may happen that reason may miss the best end proposed, and yet be corrected by custom."

Finally he recognizes an order of early development, first the body and the feelings, and next the intelligence; and he declares that the body and the feelings need the earliest training and habituation, the body for the sake of the soul as a whole, and the feelings for the sake of the intelligence.-

That this, which is probably the first formal proposal for progressive education, was not a mere casual idea, thrown out with no distinct perception of all its consequences, Aristotle clearly shows by conforming to it the entire treatment of the subject of education,—discussing first the early care for the body and its proper training by gentle and pleasurable exercises; next laying stress on early associations, impressions, and habits,—matters which concern the due regulation of the feelings and the lower intelligence; and finally considering the means which are suitable for developing reason and those parts of the emotional nature which stand in close relations with reason.

Aristotle states more clearly and sharply than either Socrates or Plato an opinion which these philosophers

doubtless shared, as to the aim which should be had in view in the education of the young. They are indeed, he thinks, to be inured to exertion and trained for war, they are to be taught things necessary and useful; but labor and war, necessity and utility, are after all not the ends themselves, but only the means for the attainment of ends higher than they can be.

These ultimate ends are the ability to enjoy the blessings of peace and the disposition to make a dignified use of leisure, and to lead a pure and noble life. And he sharply criticises the Grecian states, especially Sparta, because "in their laws and education, they have not framed their polity with a view to the best ends nor to every virtue, but have meanly cared for those which are useful and productive of gain." In another place, he thus defines what is to be esteemed mean: "Every work and every art and every discipline as well, which renders the body, the mind, or the understanding of freemen unfit for the habit and practice of virtue;" and in this he includes "all those employments which are exercised for gain, because they take off from the leisure of mind and render it sordid."*

It is evident therefore that the Athenian philosopher goes farther than the most ardent modern contemners of "bread and butter sciences", and that he would exclude from his curriculum as *mean* a large portion of the studies pursued in modern universities, because they look more or less directly to success in some gainful employment. In this he was doubtless in accord with the prevailing sentiment of his age, to which

* Politics, B.vii. C.14. B.viii. C.2

seemingly the most telling accusation against the Sophists was that they prostituted their learning to the purposes of gain. Not the least interesting thing about the paragraphs from which the above extracts are taken, is the evidence which they seem to afford that at Athens educational questions were vigorously discussed, and that the theory of utility had its partisans, as well as that of culture.

Having now observed Aristotle's views as to the general character of education, the source whence it should originate, and the end to which it should be directed, let us examine the scheme that he proposes for the attainment of his purposes, viz., a perfect body, fitted to endure all the hardships of life whilst showing itself the capable instrument of the soul for all the occasions of peace; and a soul so endowed with all virtuous and gracious habits, and so developed in all its capabilities, as to meet with equanimity all the perils of war, and to enjoy with dignity the pleasures of leisure and repose.

For bodily perfection he would provide by the careful regulation of marriages, by the destruction through exposure of imperfect or unpromising infants, by care for diet and for cleanliness, by inuring children early to endure cold, by freedom of movement and playful activity, by avoiding any prescribed mental work till the child is seven years old, and by the less arduous gymnastic exercises.

Whilst admitting the usefulness of gymnastics, he yet judiciously enters an earnest protest against too early severe training as likely to entail weakness in manhood, alleging that it is very rare that persons gain

victories in the Olympian games "both when boys and men, because the necessary exercises which they went through when young deprived them of their strength." He protests also against the more violent of exercises at any time, as better adapted to develop ferocity than courage; for "it is not," he says, "a wolf nor any other wild beast that will brave any noble danger, but rather a good man." Moreover he calls attention to the impossibility of combining great mental with great physical exertion, "the labor of the body preventing the progress of the mind, and that of the mind, the development of the body;" and hence he proposes that the severer gymnastic training with its regular diet, be deferred till the mental training is well advanced, apparently at the age of seventeen.*

In early education of the soul, Aristotle, like Plato, lays much stress on caring for the associations that children form and for the impressions which, early made upon their plastic minds, are apt to prove indelible. Hence they are to be carefully selected; they are not to be permitted to witness comedies, nor to see or hear any vulgar or indecent thing; and besides, he goes beyond Plato in advising that their plays should be so directed as to be mainly "imitations of what they are afterwards to do seriously", and that their small disputes and squabbles should be *unchecked*, as "contributing to increase their growth" by the agitation of the spirits which they occasion.

In the last recommendation, the philosopher seems to have been so intent on a possible physical benefit as to overlook the probability of a serious moral injury.

* Politics, B. VIII. C. 4.

Until the child is seven years of age, he is to be kept at home, but the last two years of this time Aristotle recommends that he be permitted to be present at lessons, to observe and catch the spirit of the instruction, and to gain some possible desire of doing what he sees older boys do,—a recommendation which seems sagaciously based on the well-known inclination of children to aspire after what they see their elders able to do.*

From the age of seven to twenty-one he proposes to divide into two periods, those of boyhood and of youth, yet without indicating any division line, nor does he designate the employments that he would consider suitable for each period.

Aside from gymnastics, the means of education that he proposes are reading, painting or design, and music. Of reading he speaks only as a thing very useful in itself and very necessary as the means of acquiring other needful knowledge; and of painting he remarks merely its use in enabling a man to judge more accurately of the products of the fine arts, and of the beauties of the human form; but on music, as being noble and liberal in its influence, and as a source of elevated and rational enjoyment in hours of leisure, he bestows a large share of attention,—discussing the nature and effects of the various harmonies, and considering for what reasons children should be taught to sing and play upon some instrument, and even what instrument is best.

He starts the question whether as a part of education its office is “to instruct, to amuse, or to employ

† Ibid, B. VII. C 17.

leisure", and answers that it does all three. It instructs, because, being an expression of feelings and an imitation of manners, it rouses the soul to sympathize with and imitate the feelings and manners that are expressed, for which cause also it is expedient that great care should be exercised in its selection. "The same," he adds, "holds true with respect to rhythms; some fix the disposition, others occasion a change in it; some act more violently, others more liberally. From what has been said it is evident what an influence music has over the dispositions of the mind, and how variously it can affect it; and if it can do this, it is most certainly that in which youth ought to be instructed."

Youth also need amusement, and "music which has the power to purify the soul, affords them a harmless pleasure" whilst they learn to practise it; but always as those who would become good citizens rather than great experts, able rather to judge it correctly than to practise it in a superior manner. Finally he says it is an agreeable relaxation from labor, and "a medicine for the uneasiness that arises therefrom"; and it may hence afford an honorable employment of leisure; yet "the learning of it should never prevent the business of riper years, nor render the body ignoble and unfit for the business of war or the state."

His final word is this, "These then are to be laid down, as it were, the three boundaries of education, namely Moderation, Possibility, and Decency."

Such then are the views of Aristotle on education, and such his catalogue of the means fitted to promote it, a meagre one even for the time in which he wrote.

Considering education solely in its political aspect, as a means of assuring good citizenship, it possibly should cause no surprise that the father of formal logic makes no mention of dialectics, or that the greatest inductive investigator of nature previous to the time of Bacon should omit all study of nature in the training of his citizens.

But it is even more curious than in the case of Plato, that he should wholly overlook history, so needful for the guidance of the good citizen in those political affairs in which Aristotle expects him to engage. We are told that Aristotle had himself made a large collection of the political systems of various states, none of which, according to our modern ideas, could be intelligible apart from history; yet, though we know that as a practical instructor in the Lyceum, which, as a school, he founded, neither his elementary nor his higher course of instruction had any narrow limitations, still history was apparently lacking to illuminate the Politics that he taught.

His teaching however included habits of observation and study of facts, a knowledge of natural objects and phenomena, criticism of poetry and oratory, politics and philosophy, and a rigid logical discipline, none of which is mentioned in his scheme of citizen studies.

The difference between his theory and his practice is not wholly accounted for by any difference in the periods of life to which they were addressed, since his scheme looks for its completion at the age of twenty-one. Possibly the discrepancy would disappear could we recover a work on education which he is said to have written.

The great merit of Aristotle is that he saw and clearly stated that education should aim to develop fully and *in due order* all the powers of the child, physical, moral, and intellectual;—the body to be trained but not to excess; the feeling to be habituated to all virtuous dispositions and to complete self-control; and the intellect to be developed, but not for mercenary ends,—regarding, in his own apt words, “moderation, possibility, and decency”.

Dr. Dittes also calls attention* to the importance in educational history of Aristotle’s method of investigation and instruction. Like that of Socrates, it was inductive, proceeding from exact examination of the subject-matter, whatever its nature, and avoiding all arbitrary hypotheses and fanciful explanations, that he might reach the realities of things. Thus he advanced the knowledge of nature, established logic on a firm basis, and did much that was of value for moral and political philosophy.

USEFUL REFERENCE FOR STUDENTS

Aristotle.—Politics, Books 7th and 8th. Ethics, Books 1, 2 and 10.

Davidson.—Aristotle and the Ancient Educational Ideals, Book 3d.

* Schule der Pädagogik. Part 4th, p. 68.

CHAPTER XIV

ROMAN EDUCATION—STATIC PERIOD

The history of Roman education has for us a peculiar interest, because into Rome, from its world-wide dominion, were ultimately gathered the various streams of culture flowing from Greece, from Egypt, and from the Orient; and from Rome, this intellectual treasure has descended to us marked with the special stamp of the Roman character.

The Latin race differs widely in genius from those races that we have thus far considered;—not more from the unprogressive Chinese, the passive and introspective Hindoos and Buddhists, and the Egyptians with their other-worldliness, than from the roving, trading, faithless Phœnicians, and from the imaginative, speculative, pleasure-loving Athenians. In some of its traits, it has analogies with the war-like Spartans, with the conquering countrymen of Cyrus and Darius, and with the constructive and administrative Egyptians; but these analogies are accompanied and modified by differences which fitted it for a peculiar, wide-reaching, and combining influence on the course of history. By reason of its masterful characteristics, the effects which it wrought on the current of historic development were universal in their extent, and to a great degree permanent in their duration; while the influence of other races has been at best local and

restricted, and has, in most cases, been perpetuated only by mingling with the powerful life-current of this imperial race.

The genius of the Roman nationality was markedly practical rather than ideal, utilitarian rather than speculative, active and persistent rather than impressive. It was little accessible to æsthetic influences; too haughty for the airy and sportive,—its very amusements being ponderous and serious when not merciless; stern and somewhat hard-hearted, yet exhibiting a keen sense of justice, observant of pledges and treaties, and averse from treachery and deceit. No race was ever more tenacious of purpose. This tenacity is well exemplified by its maxim never to end a war save as victors.

While lacking in taste and ability for speculation, it was preëminent in active and executive force, and was supremely egoistic in that larger sense which transforms self-valuation into valuation of the state; the proudest boast of a Roman was that he was a citizen of Rome. Unemotional yet deeply religious, the nation ascribed to one of its earliest kings the organization of pious observances which gave to every act of life, and to every question of the state, its divine overseer, so that the pious Roman acted, in the words of Milton, “as ever in his great Taskmaster’s eye”. From the combination of such traits sprang a people who excelled in organization and administration; who built up a system of jurisprudence which has been the admiration and the model of all succeeding ages; and who, by their bravery, their steadfastness, their

patriotism, and their subordination to lawful authority, became conquerors of the world.

The weak point in this strong character was its lack of ideality and spirituality. Hence so soon as the strain of the creation of a state and the conquest of all foes was relaxed, we see a tending to degeneration, to which no effective counteraction was offered by an education, directed always, not to ideal, but solely to utilitarian ends.

For the educational aim of Rome, in all periods of her history, was wholly utilitarian,—looking not to a harmoniously developed personality but to a well-trained soldiery, and to citizens skilled in the arts needful for the state; and seeing the highest purpose of culture, not in an ideal manhood, but in citizens brave and just, law-abiding and full of active energy; and Rome never became conscious that the higher aim would not only include all those lesser objects for which she strove, but would free her from those dangers to which finally she succumbed.

In Rome indeed, education for the state reached a supreme development, having its centre and its ideal in the state, and no centre in the subjective and spiritual nature of man. Hence, when with the attainment of universal dominion and the influx of a Greek culture alien to all their habits, the tension of patriotic effort was relaxed, and a period suited to peaceful reflection came, the results of the lack of an ideal aim in individual development for the dignity of the individual life became at once apparent.

The Roman, when free to reflect, had no worthy object to fill his thoughts and life. His egoism, here-

tofore impersonal, was now turned into channels of purely private and sordid interests, and the struggle of such interests against patriotic impulses began. Religion, which, though an active factor in the state, had never been a vigorous sentiment, dwindled to mere empty formalities at which the better-instructed sneered; and morality, thus bereft of its firmest support, was presently overwhelmed by a tide of unblushing wantonness and unbridled sensuality.

The vast riches that flowed from the conquered provinces into a state that had been founded on simplicity of life, no doubt aggravated these evils, but they did not generate them. They furnished the instruments for greed and license, but not the dispositions thereto. These dispositions were latent in the inbred nature of the race, and needed only opportunity to burst forth into excesses which first tarnished and then effaced the ancient glories of the Roman name.

The early and the later history of Rome reveals to us the best and the worst fruits of mere utilitarian ideals of life, perpetuated by a correspondent education which was relieved by no high aims.

The educational history of Rome, viewed in its broadest aspects, may, I think, be separated into two periods that are sufficiently well-marked to be useful for my purpose, which is within a brief compass to gain all practicable distinctness of conception in regard to a history which extended over more than twelve hundred years, and which naturally, during that long period, exhibited striking changes and modifications.

The earlier period we may consider as extending

approximately from the founding of the city to about 200 B. C., a duration of some five and a half centuries; and since, during this period, the means and method of education exhibited only those few and slightly-marked changes which were needed to adapt them to a state whose growth was along fixed lines, we may without impropriety term it the *Static* period.

The later period, or that of the New Education, extends from 200 B. C. to the downfall of Rome; and since, under an impulse received from Greek culture, it was marked by a great extension of subjects of study, by the introduction of different and more formal methods of instruction, and by a wide-reaching organization and gradation of educational establishments, it may properly be called the *Dynamic* period.

As has already been said, the aim of education during both of these periods was a practical one, ruled wholly by the idea of the usable and profitable; yet during the first period, the utilitarian idea was inspired by a lofty patriotic purpose, that of the elevation and aggrandizement of the state; whilst in the second period, this ennobling modification of utilitarianism gradually died out and was replaced by an ignoble self-seeking.

During the first period, to which we will first confine our attention, the training of the Romans bore some external resemblance to that of Sparta, to which it has sometimes been likened. The points of contrast were, however, quiet as numerous and vital as those of resemblance.

In both, the training of boys was largely physical, looking to military efficiency; yet in Rome we have

reason to believe that an intellectual element entered always much more largely into this training than in Sparta, and gradually came to play a quite obvious part.

The two peoples laid a like emphasis on patriotism and on obedience to elders and superiors; but in Rome both these virtues had their deepest roots in family ties which, as we have seen, were disregarded in Sparta.

Here the resemblance of the two peoples ends. In Sparta boys were isolated from the family, and were educated solely by the state for the state; whilst in Rome, during the entire period, education had a dominantly domestic character, being conducted by the mothers as well as the fathers, within the sacred precincts of the home.

Again, the Spartans despised agriculture and remitted its duties to dependents and slaves; on the contrary, the taste for rural pursuits, which the earlier Romans displayed, strongly differentiated their mode of life from that of the Spartans, and introduced a profound modification into the education received by the young,—for who would liken the effects on youthful character of the rigid restrictive Spartan *syssitia* to the free activity of a Roman boy in a country home? As is well known, some of the most pleasing legends of early Rome are connected with their taste for agriculture.

It may also be noted that the class distinctions at Rome bore but the most superficial resemblance to those of Sparta. The Roman plebs were no *Perioeci*, tame to submit to the insults and encroachments of the patricians; and still less were they *Helots*, inviting

by their humility the inhuman custom of the *crypteia*, which gave a tone of peculiar savagery to a portion of the training of Spartan youth; to the patrician haughtiness, they opposed a pride equally unyielding; and the struggles of the two classes, ending in the establishment of a *modus vivendi* equally advantageous to both and to the state, was wholly unlike anything that occurred in Sparta.

Finally, the Roman instinct for organization, for construction, and for administration, has little analogy with anything in the Spartan character; yet it is obvious how profound an influence the early development of this instinct must necessarily have exerted on the education of the young, and how different a character it must have given it from that of Sparta.

How early was the manifestation of this peculiar Roman capability, with its consequent effects on youthful education, is shown by the fact that their legends ascribe to their earliest kings all the general features of their state organization;—to Romulus, the division into classes, order, and tribes, the institution of the senate, the adoption of the insignia of authority, in short the broader features of Roman institutions, social, political, and military; to Numa, the organization of religious observances, with their offices, their rites, and their duties, and the divine sanction which they gave to the inviolability of property in land; to Ancus Martius the germs of what later was developed into international law; and to Servius Tullius, the division into centuries based on relative wealth, and its correlation of duties and burdens with privileges, so analogous to the timocracy which Solon, at well-nigh the same time strove to introduce at Athens.

This comparison of Roman with Spartan character, circumstances, and early training, will serve to give some general notion of the nature of Roman education, during what we have termed the Static period. We may now proceed to examine a little more in detail its means and method, and any germs of organization that it may present.

It is not at all probable that at the beginning of this period the education of even the most favored youth was to any considerable extent, if at all, in letters. K. Schmidt says (*Gesch.* i.757), on I know not what authority, that at the foundation of their commonwealth the Romans had the art of writing as an inheritance of an earlier Latin civilization; and that they added to this divination, surveying, and, in general the branches of knowledge which pertain to religion and agriculture.

There is no doubt however that the literary element gradually attained an increasing importance. A remark in Niebuhr (*History of Rome*, vol. 1, c. 7) would seem to make it quite as probable that the Romans acquired letters from the Etruscans, from whom their notation of numbers, and their divination seem certainly to have been derived. The early legends justify the idea that the art of writing was at least early gained, and warrant us in inferring that a people who had such skill in organization and such apprehension of what characterizes civilized life as is attributed to them, could hardly have lacked the elements of written language.

To be sure, we have no knowledge of any annals or literature that could have demanded any considerable

use of writing,* save the religious songs and the lays of heroes; and these, as is well-known, are easily preserved by memory and transmitted orally, exerting by this means a most valuable educative influence on the youth of all early peoples. Such poetic compositions, whether transmitted orally or by writing, we may be sure were influential in inculcating in the Roman youth those virtues which were most highly valued, such as purity, modesty, and simplicity of life, piety towards the divine powers, good faith towards enemies as well as friends, obedience to parents and superiors, and patriotic devotion to the state.

There is no reason to doubt that a knowledge of the state, its institutions, and its laws, made an important part of the instruction of the boys; and from 450 B. C., we know, from Cicero as well as others, that the laws of the XII tables were committed to memory by at least all well-born boys, and that they probably formed a reading book of all who learned to read. Important knowledge of their country's history was instilled into the young by the heroic songs and by narrations of the deeds of eminent men. These were a feature of the social gatherings, in which children shared in the company of their parents, and doubtless like the children of the present day listened with eager ears to everything which took the form of a story.

During this entire period, there was a careful training of girls in domestic duties and economy, and of the boys in agriculture and duties of public life, including the ability to express their opinions forcibly on

* The fact that our knowledge of early Roman history depends on not very trustworthy legends, shows how little use was made of writing.

public occasions. This last was the fruitful germ of that forensic eloquence for which the Romans became so distinguished. When we add to all this, that in the later ages of this period, some exposition of the native poets and annalists was joined to whatever of necessary reading and writing had before been taught, and that doubtless the art of reckoning with their clumsy notation, an art so needful for a thoroughly practical people, entered into the instruction of the young,—we shall have given a fair catalogue of the subjects of study which contributed to the intellectual and moral education of Roman youth during the period that we are considering.

For physical education, a gymnastic training like that of the Greeks, which aimed at bodily beauty and perfection, never found general favor at Rome in either period of its history, much less in the earlier. Thoroughly utilitarian in all their aims, their object in physical training was to confirm health and strength and to insure endurance of hardships, and capability in what concerned warlike pursuits. For anything beyond this, they had neither thought nor care. The means for this purpose, aside from the sportive exertions of youth, were agricultural labors, swimming, and material exercises, such as riding, hurling missile weapons, hunting, and the practice of military evolutions. At the close of this period, Plutarch represents Cato the Censor as himself training his son in the old Roman fashion, and according to the ancient Roman curriculum of physical education, viz., to ride, to box, to endure heat and cold, to hurl the javelin, and to fight hand to hand with the sword. So far from

deeming it a glory to bear off the palm in gymnastic encounters, as did the Greeks, these haughty burghers disdained to engage personally in such competitions, but sat in calm superiority as spectators of contests of strength and dexterity performed for their amusement by slaves or dependents.

As has already been said, the form of education during this period was chiefly domestic. Children were taught desirable things at home, and parents, especially mothers who during all the early ages of Rome held a position of peculiar honor and influence, were their teachers. Thus Plutarch tells us that Cato took upon himself the office of schoolmaster to his son, though he had a slave who was a good grammarian and taught several other children. But he tells us "he did not choose that his son should be reprimanded by a slave, or pulled by the ears if he happened to be slow in his learning, nor that he should be indebted to so mean a person for his education. He was therefore himself his preceptor in grammar, in law, and in the necessary exercises."

We may see from this passage, 1st, an exemplification of the old Roman mode of domestic education in the person of one of its last representatives; 2d, that this custom was dying out 200 B. C., and the duty of educating children was passing into the hands of slave teachers, so that a man bought a schoolmaster as he might a swine-herd; and 3d, the haughty feeling that underlay the ancient custom, that they would not have their children indebted for so great a benefit as education to any one less dear than parents. By parents then chiefly they were trained to the learning, the

virtues, and the capabilities that were deemed essential to Roman citizens.

The teaching was, in all probability, largely opportune, observational and through experience;—through precepts reduced as far as possible to uniform practice; through care for associates and for good practical example; through association with parents and friends on business or festive occasions, where we are assured that nothing was done or said that could mar the character which it was desirable that youth should form; by listening to the conversation of fathers and elders on public affairs, and watching their management of clients and other dependents; and finally, by experience of state and military affairs, under the guidance of the father or some eminent man.

Schools probably began to exist as auxiliaries to the family in the literary part of instruction, within three centuries of the foundation of the state. Livy, in narrating the legend of Virginia, 450 B. C., says she was seized by the myrmidons of Appius Claudius while on her way to her school in the forum, attended by her nurse. Other mentions of schools in neighboring cities at nearly the same period, such as the treachery of the Falerian schoolmaster, 392 B. C., and the fact that Camillus disturbed the schools of Tusculum by his unexpected arrival with his army, leave little reason to doubt that in the opinion of Roman writers schools had become not uncommon long before the close of the static period.

No works of a pedagogical character from this period have been preserved. It is said that Cato the Censor, who lived in the transition time from this to the next

period, wrote works which are now lost, but which would be fairly considered pedagogic, such as a history of Rome for the instruction of his son and "Precepts of his son", a work that is supposed to have contained counsels for the improvement of boys in agriculture, in legal and military matters, and in oratory.

In regard to the last, he is said to have made the requisites of the orator, sound understanding and uprightness of life, for only a noble man can, in his opinion, be a good orator. This maxim of his for the orator has been preseived, "*Rem tene, verba sequentur*," that is, get a firm grip on your matter, the words will come fast enough.

He wrote also a poem on morals of which fragments have been preserved in other words. The fragment here to be quoted can but cause us to regret that the entire work has not been preserved: "Human life is like iron; if it is used it is gradually rubbed away, but if neglected it is consumed by rust; just so we see that men are worn out by use; but if they employ themselves in nothing, inactivity and idleness bring them more harm than labor." A collection of Cato's sayings was long current in later Roman school literature, and of these, several are preserved in Plutarch. A collection bearing his name was also used and memorized in the schools of the Middle Ages.

The consideration of the simple and direct means and methods which the Romans made use of during this epoch to educate their young for solely utilitarian ends, has a greater interest because the best and most brilliant fruits of this kind of training were then produced. The special genius of the race and the cir-

cumstances of the times coöperated favorably with practical and utilitarian views to produce a people moral and religious without sentiment; reverent to parents and elders; hard and stern indeed, yet just and loyal to pledges; full of executive ability, skilful in organization and legislation; brave and tenacious in war, in peace energetic and sagacious in promoting public interests,—a people, in short, in whom a haughty egoism, softened by no ideal aims, had been by force of training turned into unselfish channels and transfigured into patriotism. The history of Rome, during this its static period, doubtless presents us with the best results that may be looked for from a purely utilitarian education.

CHAPTER XV

ROMAN EDUCATION—DYNAMIC PERIOD

It will not be expected that the transition from the old type of education to the new should be other than gradual, and accomplished by slow and almost imperceptible degrees. In point of fact, no dividing line can be drawn even approximately between them.

Towards the close of the 3d century B. C., we may perceive the beginning of Grecian influence upon Roman manners and education. The Greek language begins to come into use, and this use presently grows into a fashion. The Greek literature makes for itself at first a small and then a larger circle of admirers. Greek teachers and philosophers come to Rome, where they meet at first a varying reception, are greeted by the young who are fond of novelty, are looked upon with suspicion by the elders, and are more than once driven out of the country by decrees of the Senate, but finally gain a firm foothold and growing favor.*

With them come Grecian subjects like rhetoric and philosophy which were unknown to the old Roman education; and these are presently recognized as a welcome enrichment of a scheme of studies hitherto very meager. And thus, under Grecian influence, the old simple form of education was gradually superseded by the New Education,—an education however which

* Liddell.—History of Rome, c 44.

was rather fashioned on Athenian models than inspired by Athenian ideas.

The progress of this change receives a curious illustration in the person of Cato the Censor, who has been called the last of the Romans. He struggled with all the energy of his nature against these innovations; as we have already seen, he personally trained up his own son in the Roman discipline; twice by his influence the philosophers and rhetoricians were banished from Rome; and yet, in his old age, he learned Greek, and "extended the love which he had always shown for Roman literature to that of Greece. The language of Homer and Demosthenes could boast no more signal triumph than that it conquered the stubborn pride of Cato."* When Cato, and Old Rome in his person, had so far yielded to the fascinations of Greece—about 160 B. C.—we may fairly think that the static period in Roman education was ended, and that the Dynamic era, the era of change was begun.

In this era as in the earlier no lofty aim is to be looked for, no conception of the worth of a completely developed manhood. As the purpose of education in the beginning was practical and utilitarian, such it continued to be to the end. Education enlarged its means by importations from Greece, but it did not change the spirit in which it employed means. It changed its character, relating the work of instruction from the family, the forum, and the camp, to organized schools, but it did not change the aims for which it strove. It merely looked to another and less elevated phase of utility in the promotion of personal ends,

* Liddell.—History of Rome C.44.

of fame or fortune, through practical or oratorical skill; or, in the more estimable cases, it strove to check the progressive degeneration of manners and spirit, by an increase of learning, by an enlargement of the learned classes, and by substituting philosophy in the place of the dead ancient religious belief.

Rome learned to her cost during this period, that in striving for mere utility, we may lose the thing which is most really useful,—the spirit to use all acquirements aright; and that wide learning without ideal aim may prove but a barren acquisition, void of real culture and empty of all that makes learning valuable, since “Knowledge comes, but wisdom lingers.”

In the old Roman scheme of education, two of the most weighty and largely used means of training the young to desirable characters and capabilities had little to do with formal studies. These were: 1st, the teaching by example,—the example of high-minded, energetic, and patriotic fathers, of frugal, chaste, and pious mothers; the sympathetic influence of carefully chosen attendants and companions; the examples of heroic personages of earlier days presented to the young in the attractive form of narrations and heroic songs; and finally the pervasive influence of public sentiment, the example of patriotic fellow citizens intent upon the welfare and aggrandizement of their common country; and 2d, the teaching by observation and *doing*, through which both sexes learned social and religious, and boys political and military duties.

Through these two means, by dint of doing, the lessons of experience and example, enforced no doubt by fitting precept, were transmitted into habits, and

wrought into the fabric of settled character. Of these, under the new order of things, the always powerful influence of example gradually became an instrument of evil rather than of good, by reason of the growing corruption of morals which is mentioned by all historians and deplored by their own authors. Thus Quintilian says: "The unfortunate children learn vices before they know that they are vices, and hence, rendered effeminate and luxurious, they do not imbibe immorality from schools, but carry it themselves into schools."

The learning by observation succeeded by practice, also gradually sunk into disuse, and was replaced by the formal study of subjects from books or dictation. These subjects, during the first century of our era, began to take the form which for fifteen centuries they retained, of the encyclopædic Trivium and Quadrivium.* The former included grammar, rhetoric, and dialectics, or what might be called the cycle of formal literary studies; whilst the scientific branches, arithmetic, geometry, astronomy, and music, constituted the Quadrivium. Seneca, in the first century A. D., names all these as liberal studies save rhetoric and dialectics, which he doubtless considered as parts of grammar, in the wide comprehension which that term then had. Even earlier, Varro mentions them all as liberal, including two others which were later set aside as purely professional.

All these subjects were considered and taught, not as speculative matters which might be investigated and

* On the Evolution of the Trivium and Quadrivium, see a learned article in the *Educational Review* for December, 1891.

advanced, but as ascertained and practical bodies of facts which were to be learned and used. Most of them also included subject matters which are now assigned to departments of their own. Thus astronomy included whatever of physics was known; geometry was not sharply separated from geography; dialectics, which is properly the science of formal thought, comprehended, besides logic, also ethics and metaphysics, on which formal thought was then most employed; and rhetoric, the formal science of effective expression, had no definite dividing lines from politics and philosophy. Of all these sciences however, grammar was the least differentiated, or as Quintilian says of it, "It carries much more beneath the surface than it shows on its front;" for, besides the formal science of expressing ideas correctly, whether in the vernacular Latin, or in Greek, which was then largely studied, it included the study, criticism, and expression of poetic and prose literature, whatever of history and mythology was studied, and, according to Quintilian's idea, music also, "since the grammarian has to speak of metre and rhythm." Indeed, this author seems inclined to include within the scope of grammar subjects like astronomy and philosophy, since they might be needed to understand the allusions of the poets.

This indefiniteness in the comprehension of terms now used with much precision needs to be carefully borne in mind in studying the educational history, as well of the Middle Ages as of Rome during this period; and nowhere is greater care needful than in regard to the wide extent of the term grammar. In breadth of

comprehension, indeed, it has a curious analogy with the Greek term music.

It seems expedient in this place to give a brief account of the subjects that during this period were undertaken in the schools, and of some of the better known text-books in which they were pursued.

What we now know under the name grammar, as we have already seen, was unknown in the classic ages of Greece. Even Aristotle distinguished only three parts of speech, nouns, verbs, and conjunctions. Later the stoics made farther analysis of language, and the "Alexandrian scholars classified and named the phenomena of language as language." So far as is known, Dionysius Thrax, an Alexandrian scholar, about 90 B. C., wrote the first formal grammar, to aid his Roman pupils to learn Greek. Quintilian, in some chapters of the 1st Book of the Institutes, written near the close of the first century, A. D., shows that grammar had at that time taken nearly its present form; orthography was strongly emphasized, as was natural in a book on the training of the orator; etymology had taken complete form, with eight classes of words, inflection duly treated, and the importance of observing derivation impressed; syntax was also treated somewhat, under the title of solecism, and the authority of good speakers and writers in giving currency to language, was recognized; but he evidently recognizes no definite separation between syntax and what we would term rhetoric, and in this he is without justification.

Elius Donatus, in the 4th century, wrote a work on the eight parts of speech and on solecisms and barbarisms in language, which was long used in Europe, and

forms the groundwork of the elementary treatises on Latin grammar. Later, probably about the beginning of the 6th century, Priscian wrote a treatise on grammar in eighteen books, illustrated by many quotations from Greek and Latin authors, some of whom are known only by his quotations; and an epitome of this work in the 9th century by Rabanus Maurus was popular in the Middle Ages, insomuch that to make blunders in point of grammar was called "breaking the head of Priscian". These two, the most famous grammarians in the Middle Ages, and still extant, were the only ones who had a connection even remote with Rome during the period we are considering.

Of the branches included under the general term grammar, it may be said that during this epoch Greek was widely taught even in the higher elementary schools, chiefly by its use, and that Quintilian suggests that its school study should be begun a little earlier than that of the vernacular; that the chief works of Greek and Roman poets and orators received a large share of attention, an example that later ages have been slow to follow, especially as regards vernacular literature; and that music, if it be included here, received little school attention, being remitted to individual efforts.

Of history as one of the subsidiaries of grammar it is fitting to speak less cursorily. The Romans were at all periods more interested in history than were the Greeks. Hence during this period several hand-books of history were prepared for school use, which were current for many centuries, and copies of which, as

well as of the grammars that have been mentioned, are still to be found in all considerable libraries.

The most famous of these were those of Florus, 2d century, A. D., and of Eutropius and Aurelius Victor, 4th century, A. D. That of Florus, entitled "*Epitome Rerum Romanarum*", treats in four Books divided into 81 chapters of the period from the origin of Rome to the universal peace under Augustus. Without the notes with which commentators have overloaded it, it would fill not more than a hundred 12mo pages. The "*Breviarum Historia Romanæ*" of Eutropius in ten books would occupy but little more space than the preceding, and yet its survey extends from the origin of the city to the death of Jovianus, 364 A. D. These epitomes, and lives of distinguished men and of the Cæsars by Aurelius Victor, satisfied the historic wants of the later imperial period and of the Middle Ages, at a very cheap rate.

To make the instruction in history easier, also, the form of verse came to be much used; and it may be said that the use of verse as an aid to memory, was a common expedient in many kinds of study, not only in this period in Rome, but for many centuries after the downfall of the empire, and that relics of it may be found in some school books of quite recent times. There is some evidence of I know not how reliable character, that pictorial means were used to give liveliness to historical instruction.

It is of interest also to know that the geographer Strabo advises that mythology, i. e., heroic narrations, should be used as an interesting introduction to historic study. He says: "In the instruction of boys we

should begin with myths, with the fables of the poets. The reason is this, that the myth narrates something novel, and does not depict the common-place. This is precisely that which arouses the desire of knowledge, whilst at the same time the impulse of the wonderful and incomprehensible heightens the satisfaction which constitutes another incitement to learning."

Some modern teachers of History are beginning to use the principle embodied in this advice of Strabo, by commencing the instruction in history with interesting biographies and narations chronologically arranged, a method which was recommended by Dr. Thomas Arnold more than fifty years ago; and on which two German teachers, Dr. Spiess and Prof. Verlet, have prepared a series of lessons in history in three concentric courses, made up of narrations of important historic events, of biographies of men who were centres of historic interest, and of legends 'like those of Hercules, the Trojan war, the early Roman kings, and the Nibelungen Lied. Those in each course are arranged in chronological order, and those in each succeeding course are intended to overlap and widen the circle of knowledge already gained in the preceding courses, while necessitating its review in its relations to the new acquisitions. If a historic school-book like this be compared with the meagre detail of facts in Eutropius and Florus, it will be seen both how gréat an advance has been made in school books of history, and that this advance is in the line of a hint given near the beginning of the century of our era by Strabo.

Of rhetoric and dialectics it is sufficient here to say, that as formal rhetoric and logic they did not differ very materially from the form in which they are now taught, constituting with geometry some of the most perfect products of the ancient scientific intellect; that in the Roman empire they constituted departments of higher learning in special schools, which we shall presently consider; and that, during the Middle Ages, by their degeneration and perversion, they produced that bastard offspring of the speculative intellect, the barren subtleties of Scholasticism.

When we come to notice two of the remaining branches of the quadrivium, arithmetic and geometry, our attention is attracted to the slight taste which the Romans displayed for mathematics. Their means of numerical notation were exceedingly clumsy, and admitted of but a very limited development of arithmetic. Hence in Rome during the period in question, and in all Europe during the Middle Ages, the use of arithmetic was of the most elementary character, for keeping the calendar and for very simple numerical calculations in business. The simple and convenient Arabic notation was little known in Europe prior to 100 A. D.; and even since that time, the simplification of arithmetical operations which makes this science at present so easy and convenient an instrument, has been the work of comparatively recent years.

As for geometry, which the Greeks, starting with suggestions derived from Egypt, had carried to so high a degree of perfection, culminating in the compilation, arrangement, and extension made by Euclid



EUCLID, 300?—? B. C.



ARCHIMEDES, 287-211, B. C.

in Alexandria, and by Archimedes in Syracuse, the Romans and their successors for many ages contented themselves with the more obviously important definitions and theorems of Euclid, which they applied solely to practical uses, in war and the measurement of land.

Quintilian indeed (Institutes B. I. c. x.) shows a clear apprehension of the value of geometrical demonstration as a discipline for the orator,—in sharpening the intellect and in training to close thinking; in promoting habits of orderly arrangement and logical deduction; in enabling the detection of fallacies; and in so demonstrating the system of the celestial bodies as to prove that in their movements there is “nothing unordained or fortuitous”; yet his recommendation of geometry evidently wrought no change in Roman practice, which was to use truths that others had proven, without troubling themselves to verify the validity of the proof, or to extend its application by investigation.

As has before been remarked, geography was includ-

ed by the Romans under geometry as one of its phases, possibly from their use of the latter in land measurement. While considerably cultivated during this period, geography owes its advancement mainly to foreign aid: 1st, in the map constructed by Egyptians under the patronage of Agrippa, the friend and chancellor of Augustus; 2d, in the great work of the Greek Strabo, who added the results of his own extensive travels to the observations of his predecessors in preparing the seventeen Books of his geography; a work which is still preserved; and 3d in the treatise of the celebrated Ptolemy on topographical and mathematical geography.

The best known work on this subject from a Roman source is the sketch by Pliny in his *Natural History*, to which may be added a work said to be of some merit, written about 45 A. D. by Pomponius Mela, and a few other brief treatises, some of which were composed in verse, while all seem to be based on the map of Agrippa.

In the 3d century A. D., a Gallic orator of Autun, in a speech favoring the revival of schools in his native city, says that the youth are daily practised in going over all land and seas on maps which present to their eyes the position, size, and distance of places. This notice is interesting as indicating the nature of geographic instruction, as also that it had extended from Rome to the provinces. We should naturally expect attention to geography on the part of a world-conquering people. Their attainments certainly constitute the high-water mark of geographic knowledge

up to near the close of the 15th century. During this long period, the work of Ptolemy was the unquestioned authority for whatever knowledge of geography was gained.

“Astronomy received greater attention than geometry in the schools during the imperial rule,—partly because it was indispensable for the fixing of the calendar and for chronology, and partly because during this period it was coming into increasing connection with astrology*.” This, the most ancient of the sciences, since it had attracted the early observations of the Oriental peoples and the Egyptians, and had been industriously cultivated by the Greeks from the days of Thales and Pythagoras, about 140 A. D., reached the form which it retained for nearly fourteen centuries in the famous work of Ptolemy. This work, known by its Arabian name as the *Almagest*, added the discoveries of Ptolemy to those of his predecessors and especially of Hipparchus; and, as is well-known, rejecting the sagacious hypothesis of Pythagoras that the sun is the centre of our system, based its explanation of celestial movements on the idea that the earth is the fixed centre of the universe. This theory of Ptolemy gave the law to astronomical and astrological ideas, and to no small extent to religious ideas also, until the time of Copernicus.

Aside from this great work, we know that the study of astronomy was popularized at Rome during the reign of Augustus by two versified treatises, one long known as the “*Poetic Astronomy*” by C. Julius

* Schmidt-Geschichte, etc., I. p. 852.

Hyginus, a friend of Ovid, and the other, a still existing versification by Manilius.

This brief survey of the studies and chief textbooks used, during this period, in the schools for general education, as well throughout much of the Roman empire as in Rome itself, has seemed expedient here to be made, because it not only shows the condition of the sciences at the time, but also indicates all and more than all that was attempted in any of them in whatever of instruction was undertaken, during the confusion of the Middle Ages, and up to the time of the great revival of learning. These branches constitute the celebrated Trivium and Quadrivium, which—too often in a very maimed and distorted form—were the literary means of culture for many centuries.

It would not be proper however to close this survey of educational means without at least glancing at the arrangements for physical training. The old salutary physical training given in the family to fit boys for the duties of political and military life, gradually disappeared during this period. What provisions were made or proposed to take its place? To this question a brief answer may be given;—publicly *none*. As a matter of private care and choice, athletic exercises such as running, riding, swimming, and ball-playing were practised by many of the youth on the Campus Martius and elsewhere. Attempts were also made and with some success to revive the old Greek gymnastics for the sake of health and strength, and these attempts were favored in the 2d century, A. D., by the celebrated satirist Lucian and the still more famous Galen. Athletic associations were formed, and flourished for a

time, but they probably disappeared before the downfall of the Roman Empire.

As concerns the accessibility of literary works, it is interesting to note that from the reign of Augustus booksellers had their shops in the most frequented parts of Rome, and that the transcribing of books was practised with such skill and diligence that copies of many books could be purchased at reasonable prices. Also from the beginning of the empire, public libraries were cared for both in Rome and in some of the chief provincial cities. It is reported that in Rome during the 4th century, as many as twenty-eight public libraries existed, and that men of culture made these libraries places of meeting for study and conversation. Thus it may be seen that in Rome during this period abundant means of culture were presented and also made very accessible.

It remains to be considered in what way these means were used, i. e., what were the methods of instruction, and what the organization and functions of the various kinds of schools, elementary, higher, and special, which gradually grew up, and some of which in later times were encouraged by the state. The first of these points, with some subsidiary matters which naturally belong with it, we will examine here, leaving the larger question of organization to the succeeding chapter.

For the methods of instruction which were employed during the dynamic period of Roman education, we have satisfactory sources of information in contemporary authors. Chief of these is Quintilian in the 1st Book of his *Institutes*, a work of the 1st century, A.

D., to which may be added interesting hints by Lucian in the 2d century, and in the 3d by Dositheos, a Greek teacher in Rome. These methods, though of great interest because some of them have been perpetuated nearly to our own time, and because others might reasonably be used even now, may yet be briefly despatched.

Reading was taught in the elementary schools by the alphabetic and syllabic method, which has not yet entirely disappeared from some of our more backward schools, though our language is not so well adapted to its use as were the Latin and Greek.

Quintilian recommends that objective aids be used in this instruction in the form of letters cut in ivory which children may handle and observe. It is possible that his advice indicates a somewhat general use of such means by the better teachers. He also advises that the more difficult words and combinations of sounds be diligently practised until they can be uttered with certainty and ease. Thus care was to be exercised from the outset to insure clear and accurate pronunciation.

When the elements of reading were thus mastered, the pupils read portions of the native poets, analyzed them as to form and meaning, gave the proper inflections to the metre, and then committed them to memory. Dositheos thus describes his own boyish work: "I read my lesson, which the teacher carefully explained to me, until I understood the persons and the import of the words of the author. When bid by the teacher, I stopped and gave place to another pupil. I retained the explanations in memory, and when we

had taken our seats I went over by myself the instruction as to facts, language, and metre. Returning to my place, when I was called upon I drew forth my right hand, pressed my left against my dress, and began to recite. I repeated the verses according to their measure, distinctly and with correct emphasis, and then I gave the paraphrase." This account is so artless, and yet vivid, that we seem to be assisting at a class exercise in reading in the 3d century.

The teachers also read with their classes and explained the ethical poets, doubtless as a means of moral instruction; and either dictated considerable passages from poets like Terence and Horace, or used instead school manuals of such extracts, analogous to modern reading books.

We thus see the teaching was largely oral, and this too, not merely from the paucity of books, but, as may readily be gathered from Quintilian—from a conviction that the living voice accompanied with looks, attitude, and gesture is needed to make a deep impression on the minds and memories of the young. In the more advanced classes, prose works like those of Cicero, and the tragic, comic, and lyric poets were in like manner explained, with lessons on style and elementary grammar, and with illustrations from history and geography, the latter being aided by maps.

Greek seems to have been widely taught, even in the better class of elementary schools. Quintilian even suggests that the school instruction in Greek should be a little earlier than that in the vernacular, a strange suggestion, and even more strange since the alphabets are unlike; later he thinks the instruction in Greek

should go hand in hand with the vernacular, and that it should be taught in the grammatical way. We gather however from Dositheos that Greek was most largely acquired by use and reading.

The art of penmanship, which was especially essential in an age when books could be multiplied only by its use, was evidently taught at the same time with the elements of reading, and was pursued with great care for legibility and rapidity of execution, that pupils might be prepared for the necessary copying from dictation and for taking notes from oral teaching. Rewards were offered to encourage skill in penmanship, and a species of short-hand was taught by special teachers.

The practice work of pupils was executed on waxed tablets, with an iron stylus of which one end was pointed for writing, and the other flattened for erasures. The pupils imitated copies set by the teacher, at first apparently words that should introduce all the letters, and afterwards useful maxims. Quintilian suggests that to facilitate the acquisition of the movements, copies should be incised in a hard surface which the pupils might trace with the stylus, a device somewhat akin to one that is now sometimes used, in copies faintly traced, over which pupils write following the tracing.

The instruction in arithmetic, as has already been remarked, was confined to imparting a sufficient degree of expertness for practical purposes in the four simple rules. It was given by the elementary teachers, and was objectively aided by the use of the reckoning

board provided with pebbles, as among the Egyptians and Greeks.

The method of instruction in the written use of the vernacular, passing into rhetoric, as it is described at large by Quintilian, was admirable and effective. It was made up of a theoretical and a practical part. The theoretic study consisted in a careful analysis and memorizing of models of poetic and prose expression and of the modes of conveying, illustrating, and enforcing ideas, passing thus into the study of formal rhetoric. The practical side of the study, which was vigorously pushed, consisted in declamations, in an admirably graduated series of exercises in composition, and in a course of lessons in extemporaneous speech judiciously graded to growing powers. The English-speaking peoples have not yet approximated to the excellence of the instruction given at this time by Romans like Quintilian in the art of composition and oratory.

The methods of instruction in law and medicine will be best considered when we come to treat of the organization of these with other schools. A few other matters of interest may however be treated in this connection. We should for example here recall what has before been mentioned about the use of versified textbooks. These became common in a number of studies, even arithmetic being set to numbers more or less harmonious; and their long-continued use proves that they must have been a great aid to the memory in ages when memory was perforce more burdened than now.

The discipline in the elementary schools was severe, and was enforced by the rod and other corporal inflic-

tions. Quintilian however utters a vigorous protest against flogging as being slavish in character, as tending to harden rather than reform, and as liable to be abused by injudicious teachers. Thus we have the same coarse modes of enforcing obedience, as in modern times, resorted to by harrassed practical schoolmasters, and the same protests from the more enlightened spirits against rude physical punishments, sustained by much the same arguments.

In the schools of rhetoric in Rome and its immediate provinces, as well as at Athens, the discipline was exceedingly lax, and scandalous disorders were not unfrequent. This laxity and tendency to disorder not only sprang from the idleness and unruly disposition of many of the students, but too frequently was provoked by the affectations and peculiarities of teachers, their toadying to the rich, their canvassing for pupils, their lack of any originality in matter, and their obvious catering for the applause rather than for the improvement of their students.

To check the lawlessness and disorders in the schools, laws were promulgated by some of the emperors regulating the registration of students, providing for testimonials to character, forbidding student societies and too frequent attendance at theatres and places of convivial meeting, and punishing infractions of rules by public flogging and expulsion. Fines also appear sometimes to have been imposed by these schools for disorderly conduct. Diligent students were allowed to remain at Rome until the age of twenty, when if they belonged in the provinces, they were required to return

to their homes. Guizot* cites an edict of Justinian as an example of such restrictions.

The social estimate of the elementary teachers and of many of the private tutors was low, their condition far from enviable, and their fitness for their position too usually small. Worn-out soldiers, and even worthless slaves often engaged in teaching as a last means of gaining a precarious livelihood. Their pay was very small, about four dollars a year per pupil with occasional presents, for the eight months during which the schools were open.

The higher teachers of grammar, rhetoric, philosophy, and law were, on the whole, held in much higher respect, and enjoyed some special privileges. The salaries of some of the more eminent were considerable, and in later days were paid by the state, which also exercised the prerogative of appointment and removal. By decrees of many of the emperors, beginning about 150 A. D. with Antoninus Pius, a limited number of such teachers were exempted from all such burdens of the state as were inconsistent with their vocation, like military service and having soldiers quartered on them. Guizot, in the lecture above referred to, cites three edicts to this effect.

As we shall see hereafter, in the later years of the empire the decay in other respects was attended by decay in education. Schools dwindled; attempts were made to sustain them by cheapening learning through the baldest epitomes; these attempts were of no avail; and Roman learning shared the fate of the empire, and was buried beneath its ruins,—buried but not wholly lost.

* History of Civilization in France, Lecture IV.

CHAPTER XVI

ORGANIZATION OF SCHOOLS AND HIGHER EDUCATION

During what I have called the dynamic period of Roman education, the old simple frugal virtuous domestic life of the wealthier classes gradually disappeared; and with this change, as has already been said, domestic education given by parents was replaced by instruction given by private tutors and by schools. Tutorships more or less restricted gradually gave way to the tendency to a more public education in schools, and schools finally assumed a more settled and differentiated character, under the Roman instinct of organization, so that by the close of the 1st century, A. D., we may discern the outlines of a regular and consistent system of schools, and a division of duties in the work of youthful training.

This system may be graphically illustrated by the following diagram:

<i>Elementary</i>		<i>Secondary</i>	<i>Special</i>
School of literator	School of grammaticus	School of rhetoric	School of jurisprudence, School of philosophy, School of medicine.

Before proceeding to describe the somewhat distinct functions of each of these grades of schools, it will be well to notice the relation in which they stood to the state. Elementary education was never made a matter of governmental care and oversight. The

emperor Nerva, indeed, near the end of the 1st century, decreed that destitute and neglected children should receive the elements of education at the public expense, but his well-judged effort proved futile. Several of his successors, as likewise some benevolent private persons, gave considerable sums to lessen the evils of ignorance among the poor, some of which gifts were evidently intended for the relief of children of the better class whose parents had become impoverished,—with the results that usually follow gifts for education the recipients of which must openly acknowledge their poverty; but no effectual public provision was even made to promote general elementary education, nor was any encouragement offered to education by the state, as among the Chinese and Egyptians. It always remained a matter of private concern*.

On the other hand, state encouragement of schools for higher education began with the earliest emperors, and, with some interruptions during the reign of bad rulers, it remained as a settled policy throughout the centuries of imperial rule. This encouragement took several forms,—now, of the erection of buildings for lectures, of which the Athenaeum founded by Hadrian “for instruction in the liberal arts” is an example; now of the founding of public libraries of which mention has already been made as an educational means; again, of the payment of public salaries accompanied often by senatorial rank to eminent professors of the liberal and professional branches, the celebrated Quintilian being the first professor who received

* Schmidt-Gesch. der Päd. i.846.

a public salary in rhetoric; and finally, of exemptions granted to the higher teachers from many of the most onerous burdens of the state*. Hence "under favor of the emperors, there arose in all parts of the empire a highly developed high school organization" to which young men flocked from the less favored cities and provinces.

All classes of schools had their vacations at the same time. Chief of these was a vacation of four months from June to October, rendered necessary by the climate of Italy and of the neighboring regions. Besides this there were many festival occasions which were holidays for the schools. Such, for example were the Saturnalia in December, lasting from three to seven days, and the five days of the festival in honor of Minerva which occurred in the middle of March.

The organization and work of the several classes of schools indicated in the diagram given above may now receive our attention. The lower or strictly elementary schools which received boys between the ages of about seven and twelve years, were taught by a class of teachers called *litterators*. In these schools were taught the elements of reading, writing, and reckoning. When the number of pupils was large, the master had an assistant to aid him in his duties; besides which he called in the aid of the more advanced pupils for dictations and repetitions.

The pupils were probably separated into divisions or grades according to their age and advancement. The schoolrooms had usually an ante-room where the pupils laid aside their over-garments; and they were pro-

* Guizot, *His. of Civ. in France*. Lecture IV.

vided with an elevated seat for the teacher, movable stools for the pupils, and the appurtenances needed for the work of instruction,—such as book-rolls, reckoning boards, and geometrical figures.

A prominent object was the rules of the school written in large characters, and hung upon the wall; doubtless also the rod to enforce the rules was rarely wanting. Both Dositheos and Lucian give us lively pictures of the school-boy, crawling out of bed at sunrise, washing the sleepiness out of his eyes, and setting out for school followed by an attendant to carry the articles that he might need. He mounts the stairs with quiet tread, lays off his upper garment in the ante-room, smooths his hair, not without a furtive peep into a small hand mirror, greets his teacher and schoolmates, and then, boy-like, begins a scramble for the convenient stool. Some of these schools, especially in large cities, advanced their pupils farther than others, and thus approximated their work to that of the grade above them.

The masters of the schools next higher in rank were called *grammaticus*, i. e., grammarian. These, which may be called higher elementary schools, advanced the boy much farther in the studies which were begun by the literator, including usually Greek, imparting the elements of grammar in the modern sense of the word, reading and expounding the works of the poets and prose authors, and giving an elementary introduction to the cycle of studies embraced in the trivium and quadrivium.

Attendance in these schools ended at the age of sixteen, when the boy assumed the manly toga, and en-

tered on the pursuit chosen by himself or by his parents.

If this were of a forensic or other professional character, his higher education began in the schools of rhetoric, which evidently bore much the same relation to the schools below and the specialized branches above as is borne by the higher classes of the German gymnasium and the French lycée, and possibly by the American college, to the grades below, and to the specialized work of the university or the professional schools above. They were high schools which were encouraged by the state, and were gradually multiplied, to teach rhetoric with all which that name implied to a Roman, as a branch of polite learning adapted to fit a young man for a life of useful activity in the state; schools of general culture, but not of disinterested culture, since they aimed to impart that which would be useful in the general course of life which educated but non-professional Romans were likely to lead.

It is evident from Quintilian and others that in addition to rhetoric, they presented so much of history, dialectics, philosophy, and jurisprudence, as was conceived to be needful for the orator, the statesman, and the man of affairs. Besides this, they evidently formed the stepping-stone to the study of law, to the pursuit of philosophy in the highest sense the word then had, and to whatever of study was then devoted to medicine.

I am however inclined to think that the line of demarcation between the school of rhetoric and those of law and philosophy, was by no means sharply drawn. Such schools for the higher education looking to ora-

tory and statesmanship, according to Karl Schmidt*, certainly began to exist in Rome as early as 100 B. C.; but they evidently were not common until the time of the emperors; for in Cicero's youth, boys aspiring to law, oratory, and statesmanship, still attached themselves, according to the old Roman custom, to some distinguished advocate, whom they attended, and learned by observing his practice how they might hope to succeed.

Under the encouragement of successive emperors, schools of both rhetoric and philosophy were multiplied at Rome and in the provinces of the empire, and Schmidt gives a considerable list of those that are known to have become famous†. There is also evidence that in Rome during this period there were frequent literary competitions set for the ambitious youth in these schools, which served as well for tests of their progress in their studies, as for an incitement to efforts for distinction.

The schools of philosophy received grown youths and mature men, and were a direct continuation of the schools of rhetoric. In them were taught, not only the doctrines of the several schools of philosophic thought, of which those of the stoics were most largely influential at Rome, but likewise dialectics, and, in those of the Platonists, mathematics. Their chief aim however was to promote the moral development of young men.

In the language of Seneca, "Philosophy gives health to the soul, and is not merely the best but the

* *Gesch. der Päd.* Vol. 1, p. 785.

† *Ib.* p. 870, See also Gibbon C.XXV, p. 542 of six volume edition.

only guide to morality, the sole teacher of the highest art, the art of living." Indeed, the best and purest spirits in Rome were conscious of the fatal void which the dying belief in the old religion was leaving in the soul of men, and they strove to fill this void with the tenets and maxims of philosophy. Since religion was no longer influential in furnishing the needful basis for morality, they took refuge in philosophy, as we see was true of Seneca, and vainly hoped to find in its precepts the support which their souls needed. Some of the more zealous professors even displayed a missionary spirit, striving, apart from their public teachings, to exert a direct personal influence on the dress, the manners, and the modes of living of their disciples. To this end, they invited favorite adherents to their houses, set before them frugal repasts, such as were becoming to philosophers, and entertained them with conversation in which the grave questions of philosophy were mingled with sportive sallies, and with topics of the hour treated in a lighter vein.

The example of such symposia proved contagious, and spread among the students, who established their own philosophic clubs, in which each member in turn furnished the materials for the feast, and questions were set with a prize for him who should answer them best. "These questions referred to the explanation of dark passages in an author, or to the investigation of an incident in history, or to the proof of a philosophic proposition, or to the refutation of some fallacy, etc." It is obvious how useful in an educational sense such student associations are capable of being

made if conducted in the right spirit, which unfortunately they are too likely not to be.

If, as we have seen was true in Athens, the speculative spirit, which is the soul of philosophy, did not long survive the founders of the various schools of thought, much less was it to be expected that it would exhibit any vigorous life among the Romans, whose strongly practical spirit was always averse to speculation. The best efforts of the schools of philosophy seem therefore never to have exhibited any striking originality of thought or in its application; their attempts to educe from the doctrines of the ancient sages principles for the better guidance of life were powerless to check the progressive decline of manners; and they themselves shared the tendencies of a people, who, from lack of any high ideal aims, were gliding surely to decay.

The schools of philosophy were the nearest approach that was ever made at Rome to a disinterested culture, a culture whose chief aim was the elevation of the human personality; but they began it at too advanced an age of their disciples, when early habits are little likely to be overcome; amongst a people whose hereditary tendencies had become utilitarian by uniform transmission through many generations; and finally, with too narrow a basis of studies, addressed to but a fraction of the spiritual nature.

Of the instruction in medicine given in Rome, very little is known with any certainty. The names of most of those who became famous as physicians are those of Greeks or Orientals, some of whom received enormous fees. The schools of medicine of Alexan-

dria enjoyed a high reputation for centuries, and to come from there was a great advantage to a young physician; yet the large gains of celebrated physicians certainly offered strong inducements to enter the medical profession; and there is a great probability that a number of medical schools existed in Rome and its vicinity; that they were started by the gathering of young men to noted physicians; that the young man desiring to become a physician went to his medical study after completing his course in rhetoric; and that, besides the study of medical works, of which those of Galen, the supreme authority in medicine during the Middle Ages, were the chief, during the last centuries of the empire there was also a kind of clinical practice, since the poet Martial complians that physicians go to the bedside of their patients attended by a throng of students, and that a hundred icy hands explore the body of the sick person and cause him torment.



CLADIUS GALEN, 130-200 ? A. D.

It is not surprising that so little should be known of the training for a profession whose most useful services are performed in privacy by the bedsides of the sick. We know however that quackery was not wanting at Rome, and that works analogous to our modern "Household Practice of Medicine" were current, evidently intended for family use, and that in some of

them the usage was followed of popularizing knowledge by presenting it in verse.

In the case of a people so celebrated as the Romans for their legal skill and the excellence of their system of jurisprudence, we should naturally expect more definite information about their mode of training for law, than has reached us in respect to medicine. In this expectation we are not disappointed, for the sources of information are abundant.

In earlier times, as we have seen, the instruction in law was gained with that in oratory, by young men attaching themselves to some eminent advocate and learning their profession from his counsels and from observing his practice. From this primitive custom sprang the first schools of law, and these beyond a doubt originated in Rome. Groups of young men who had finished their course in the schools of rhetoric collected about some famous jurisconsult, who instructed them in the laws and the modes of practice, and who, finding the employment agreeable, received successive classes of young aspirants for forensic honors. In this same way, about the beginning of the 12th century, the university of Bologna originated through the assembling of young men about the celebrated jurist Irnerius.

The instruction in law at Rome was therefore a matter of purely private concern, the students choosing their preceptor and paying the fees that he demanded for his services. From these voluntary assemblages of students arose the schools of law; and so rapid was their growth, that in the reign of Tiberius, early in the 1st century, A. D., there already existed in Rome

two great rival [schools. One of these, called the Cassian, was conservative in character, held to a strict interpretation of the edicts and judicial decisions, and was favorable to the imperial rule; the other, called the Proculian, was rationalistic in its teachings, desired to base law on the universal conception of justice, and advocated the republic.

In this manner during the dynamic period there arose in the Roman empire three great centres of legal instruction, viz., in Rome, as early as the 1st century; during the 3d century in Berytus, where Ulpian and Papinian taught, and in the 5th century in Constantinople. We have no reason to suppose that these were the only schools of law in so vast an empire, but merely that they are the best known to us from the celebrity of their teachers. Indeed there are indications that the instruction in law never wholly ceased in some favored spots, even during the confusion of the darkest periods that succeeded the downfall of the Roman empire.

The teaching consisted in part of a series of public lectures to which all had access, and in which interesting legal principles and questions were discussed. Of these lectures which were an introduction to the science of law, it is supposed that we have examples in the Institutes of Gaius, a celebrated jurisconsult who probably lived in the 2d century. Another part of the teaching which succeeded the public lectures was wholly private, and consisted of systematic instruction in the laws, given to a small group of students, followed by an introduction to practice through disputations [on important legal questions. The lec-

tures were probably given extemporaneously but from carefully prepared notes, as Plutarch tells us was the practice with professors of rhetoric and philosophy. From the instruction given in these schools sprang many legal text-books, such as the Institutes, which were treatises introductory to the science of law, the Responses or opinions of the author on legal questions, and the Digests, which were a systematic arrangement of the legal principles and decisions of a law professor or group of professors. The Institutes and the Digest or Pandects compiled under Justinian continue names earlier given to legal text-books.

Such is a brief account of the series of schools which grew up in Rome during what I have called the dynamic period, the period of definite organization and differentiation of duties, as contradistinguished from the static period in which there was very little trace of organization. This system, as may be seen, was singularly complete, when we consider the times during it grew up and the means of culture then available, and consider also that it was entirely a growth out of voluntary efforts to meet the needs of the times. Its fullest expression as a system coincides with the centuries of the imperial regime; but its origin is to be found in influences springing from Greece, and acting during the two preceding centuries on a people fond of organization.

CHAPTER XVII

EDUCATIONAL OPINIONS OF EMINENT ROMANS

As is true in all other history, the history of education naturally lifts into prominence the names of men who distinguished themselves in its annals, whether as the authors of works long influential on the course of instruction, or as teachers whose methods and example were of enduring influence, or as writers whose thoughts on education are either valuable in themselves, or are important for purposes of comparison to exhibit the development of educational theories. Of those whose works were long familiar from their use in schools, several have already been mentioned, like Donatus in grammar, Florus and Eutropius in History, Strabo in geography, Ptolemy in geography and astronomy, Galen in medicine, and Julius Hyginus, the versifier of astronomy.

Besides these, it will be profitable to examine somewhat more fully the pedagogical ideas of a few men who were of special eminence during the dynamic period of Roman education. These men were M. Terentius Varro*, reputed the most learned man of his time, Cicero the renowned orator, the philosopher Seneca, Quintilian the famous teacher of rhetoric, and Plutarch, who, though by birth a Greek, taught long at Rome, and has exerted an enduring influence on

* M. Terentius Varro, 116 to 27 B. C.

many generations by his biographies of great men. The educational opinions of such men are of unfailing interest, as well from the eminence of their source as from their own intrinsic worth.

Varro

This man was born of an old senatorial family, and was educated with the ancient Roman strictness at a time when Grecian fashions were becoming every day more prevalent in Rome. He was a participant in the fierce party struggles of his day, in which he served with distinction, and through which he gained the dangerous honor of being proscribed by the opposing faction. On account of his vast learning, he was appointed by Cæsar, whom as a partisan of Pompey he had opposed, to organize the library "through which he strove to lay the foundation of a universal literature for his universal empire."

After the death of Cæsar and a period of exile under the triumvirate, he made his peace with Augustus, and passed the remainder of his life in retirement and study, dying finally at the great age of eighty-nine. Though he was evidently a person of great social and political importance in his day, he was chiefly distinguished among his contemporaries for the great extent and variety of his learning, and for his unwearied literary activity. He says himself that he was the author of 490 books, though others declare that his works included 620 books under 74 separate titles. Most of these are now lost or exist only in fragments.

A treatise on "The Education of Children" which he wrote is known only from a few fragments; but from these it is apparent that he approves and recom-

mends for children the strict care that was taken with his own early diet, dress, and sleep; that in early training, he lays great stress on fit companionship, on singing, and on sports, from which he would exclude all such as exert an unfavorable influence on the disposition; and, most remarkable of all, that he insists that fear and all undue excitement of feeling are unfavorable to learning, whilst pleasure is an effective spur to it,—a principle that, emphasized by Locke and now generally admitted, is not fully acted upon by educators, even at the present day.

It is also apparent that he gives some attention to the education of girls; since a fragment exists in which he recommends that girls should learn embroidery, that they may be the better judges of it and of all textile fabrics; and that they should not too early be allowed to discard the dress of the girl to assume that of the mature woman.

The works which he wrote on school subjects are, however, of greater importance in the history of pedagogy than his educational ideas, so far at least as we have any knowledge of the latter. Thus he wrote treatises on grammar in the wide sense of the word, one of which is a treatise on the Latin tongue, six of whose twenty-four books* have come down to us in a somewhat mutilated condition, yet conveying items of information not elsewhere preserved. He wrote also works on antiquities, on rhetoric and philosophy, on geometry and its application to land measurement, and on agriculture, the last of which has been preserved

* Book V to X.

and is valuable as a source of information on ancient husbandry.

Most interesting of all, is his statement of what he considered school subjects or liberal arts. In this he includes nine, being the entire Trivium and Quadrivium, and also medicine and architecture. He thus omits from Cato's list war, agriculture, and law, probably on account of their technical character; but includes two subjects which later were omitted as purely professional. This list of Varro was probably the forerunner of the seven liberal arts of the Middle Ages.

Cicero

Cicero, renowned for nineteen centuries, not only as



DEMOSTHENES, 384-322, B. C.



MARCUS TULLIUS CICERO, 107-43, B. C.

an orator with no peer save Demosthenes, but also as the consummate master of the resources of his native tongue, is a good representative of the dynamic period and of its ideas at a time when old Roman habitudes had largely yielded to Grecian influences. Born of a good rural family, his extraordinary youthful promise caused him to be educated in the city by the best

teachers of the time, one of whom was the poet Archias, whom in after years he defended in one of his best known orations.

To great talent, he joined an equal industry in mastering all that related to eloquence, philosophy, and law, the first two from Greek masters, the last from Q. Mucius Scævola, the greatest lawyer of that period, to whom he attached himself after the ancient Roman custom. Thus his training combined in itself both the old and the new, with the Greek mode preponderating. This predominance was increased when, after winning his first oratorical laurels at home, at the age of twenty-seven he repaired to Greece, and spent two years at Athens and Rhodes in the farther pursuit of the Greek rhetoric and philosophy, and in correcting some defects of voice and delivery.*

From this time his history is generally known. His rapid rise through all the grades of office until he reached the consulship, his suppression of the conspiracy of Catiline, and his prominent part in the events of the troubled period during which he lived, are recorded for us in orations of his, which, from their frank egotism have an autobiographic interest. At the age of sixty-four he fell a victim to the revenge of Antony, whom he had bitterly denounced in his philippics.

His views on education, which entitle him to notice in this connection, are to be gathered from incidental remarks, occurring in his philosophic and rhetorical works, and having reference chiefly to the training of the orator; and very much of their importance is due to the well-earned celebrity of their author.

* Schmidt, *Gesch. der Pädagogik*. Vol. 1. p. 813, 4th enlarged edition.

They may be thus concisely stated:

(1) Education begins in early childhood with impressions made upon the senses, especially in boyish sports, and hence, during this impressible period, great care should be exercised with regard to surroundings, companions, and example of parents and friends.

(2) Boys should be accustomed to hardships and practised in patience, and should be aided and encouraged to choose the best men to whom to attach themselves as disciples.

(3) The feelings of youth should receive careful direction, that they may avoid excesses and sensual indulgence, may be regardful of the old, and mindful of the claims of morality, and especially may have a keen sense of honor, coupled with a desire for distinction.

(4) Much care should be given to the cultivation of memory and to storing it with choice passages from the best authors; and, to aid memory, he strongly recommends a mnemonic system ascribed to Simonides, in which things to be remembered are associated in an orderly manner with the parts of some familiar place.*

(5) The young man should choose his vocation, provided that it be respectable, with sole reference to his tastes and capabilities.

(6) For the orator, in addition to native talent and predilection, there is needed a thorough training, which, besides a noble and free early education, should include industrious practice in both oral and written expression of thought, and an exact knowledge of law and justice, of history, especially that of one's native

* De Oratore, Book II, C. 86-88.

country, and of philosophy, which is a school of virtue.

(7) The study of Greek, i. e., of some foreign language, is of great importance to the orator.

(8) The results of a study of nature and of man, and thus of education in general, are of little worth unless they tend to right action: i. e., the trend of education should be dominantly moral.

From these opinions, it may readily be seen that in Cicero the current of Greek ideas is still mingled with not a little love for the old ways, that he has no regard for disinterested knowledge, and that indeed all is Roman and utilitarian. As regards the value of thorough preparation for one's life work, the example of Cicero is of greater pedagogical interest than any educational views that he incidentally expressed; for it shows us to what mastery of all needful subjects matter, to what pains-taking preparation, and to what minute study of the niceties of his native language, both in use of words, and in choice of modes of expression, much of his unequalled excellence was due.

Seneca

Seneca, famous as the greatest Roman writer on philosophy, was born at Cordova in Spain. From his great youthful promise, his father, Seneca the Rhetorician, noted for his remarkable memory, destined him to the career of an orator, and educated him at Rome. Here he followed the lectures of the philosophers more zealously than those of



LUCIUS ANNAEUS SENECA 3 B. C.-
95 A. D.

the rhetoricians; and though possessing considerable powers of eloquence, he cared little to use them in forensic contests.

He was early made senator, and filled some honorable offices, but from certain suspicions of unworthy conduct, he was banished to Corsica, where he remained several years, studying philosophy, writing philosophic treatises, and indulging in most unphilosophic repinings and entreaties. Recalled to Rome, he was made tutor to the youthful Nero, whose depraved nature afforded little encouragement to the lessons of the philosopher; and finally, at the age of sixty-nine, he became one of the many victims of his former pupil.

His educational opinions are incidentally expressed in his philosophical essays, and some of them, from their felicity of expression, have passed into pedagogic maxims.

His idea of the chief end of education is that it should guard against effeminacy, the passions, and vain fancies; should promote self-rule, truthfulness, and a reasonable self-confidence; and should insure purity of morals and serenity of soul. Character therefore is his aim. To obey the Divine Power is freedom, in his opinion. But man is destined to act as well as to reflect, and readiness to do both should be developed in him. Virtue must express its growth in deeds, and permit the gains of study and of thought to show themselves in actions.

Seneca clearly recognizes the innate differences in individual abilities and proclivities, and the consequent

need that educators should shape their requirements and modes of procedure in view of these differences. He believes, not as some more recent theorists seem to have believed, that the native dispositions can be wholly changed by education, but that they may be profoundly modified thereby,—that “by wise laws, and above all by a prudent training which joins strictness with mildness, the tendencies to evil may be corrected, whilst the desirable dispositions may be brought the sooner to their highest possible perfection.”

Discipline he would have as mild as is consistent with the attainment of its object in the moral advancement of the young. Like the Grecian philosophers, he thinks that the spirit is weakened and made servile by slavish treatment, but that it uplifts itself and learns self-confidence by judicious praise. Punishment should be resorted to only as a final necessity. “He who punishes much punishes unjustly;” hence in its infliction there should be no haste nor anger, for “punishment tends so much more to reformation as it is determined on with deliberation.”

He would never permit a child to gain anything by begging humbly for it, nor to overcome by obstinate persistence; but on the other hand, he would freely grant to him when quiet and self-respecting, fitting things which would have been refused to his humility or his cries. Nor likewise does he think it well that youth should be frequently overcome in equal competitions, lest they should become timid and wanting in a proper confidence in their own ability. These ideas on the management of the young are obviously in harmony with the best modern thought on this subject.

The relation which Seneca would have established between teacher and pupil would be marked on the one side by kindly and conscientious care, inciting on the other to noble endeavor and to efforts for spiritual elevation, the teacher distinguishing himself not so much by what he imparts as by the spirit in which he imparts it, and winning for himself a permanent hold on the pupil's gratitude, rather by his benevolent and friendly disposition, than by any skill he may display. "Such an one," he says, "who shares his all with us and awakes our slumbering powers, we must hold in as high esteem as a kindly physician, or as our nearest and dearest relatives."

He clearly recognizes the truth that in education example is more effective than precept, and that precept to be effective must be illustrated and enforced by the lives of teachers and parents. His pointed statement of this truth has become the familiar pedagogic maxim "*Longum iter est per praecepta, breve et efficax per exempla*,"—long the route by precept, short and effective by example.

He sighed for the good old times and the vanished virtues of Rome, and wished that education might, as in ancient days, be limited to what is applicable and useful in life. From a change in the form but not in the idea of his complaint in this respect, has arisen the maxim so often quoted by utilitarians, "*Non scholae sed vitae est docendum*," learning should be not for school but for life. Seneca's idea of the useful, however, differed from that of the present day; for, while he would eliminate from education all useless things, he believed that philosophy as the doctrine of virtue is

the study most truly useful for life, and that the "liberal arts" of his day should be pursued as preparatives to philosophy and virtue. In education as in all other things, due moderation should, he thinks, be observed. The burdens imposed on youths should be fitted to their powers, and especially a confusing multitude of things should never be allowed to distract their attention. Far better that they should devote themselves to a few good authors than that they should skim over many. "*Non multa sed multum*," not many things but much. Likewise he discourages much cursory reading, as merely distracting attention and nourishing superficiality, his oft-repeated maxim "*Timeo hominem unius libri*," I fear a man of a single book, concisely expressing his sense of the benefits of intellectual concentration.

In conclusion we may say, not only that many of his philosophic teachings are of pedagogic import, direct or remote, but also that some of them have so strong a flavor of Christian truth that there have not been lacking suspicions that he was at heart favorable to Christianity; and there have even been made efforts to connect him with another illustrious victim of Nero, the apostle Paul.

M. Fabius Quintilianus, 40 to 118? A. D.

This celebrated rhetorician and teacher, who has bequeathed to succeeding ages a treatise on oratory of rare excellence, and has embodied in it an account of the means and methods of instruction in Rome at this period, more complete and satisfactory than any other that antiquity has transmitted to us, was born in a

small city in Northern Spain near the borders of what is now the province of Navarre. The exact year of his birth is not known, but from circumstances in his early education, it is thought to have been about 40 A. D.

Early in life he went to Rome for his education, and there the residue of his life was spent, with the exception of a brief sojourn in his native country during his early manhood. He adopted the profession of an advocate, in which he gained distinction; but later he became a public teacher of rhetoric, and his success in this vocation was so great that he had the honor of being the first professor who received a salary from the imperial government.

After twenty years of service as teacher, as he tells us, he abandoned a public career, measurably at least, and, at the instance of his friends, he entered on the preparation of his still widely-known *Institutes of Oratory*. From the introduction to the 4th Book of the *Institutes*, we learn that while engaged in this work, the emperor Domitian appointed him tutor to his grand-nephews; and this same emperor of evil repute also bestowed on him the title and insignia of the consulship.

Somewhat late in life, he married a young girl who died at the age of nineteen, leaving him two sons, the younger of whom died not many years after the mother, followed a few years later by his elder brother, a promising child on whom his father had centered great hopes. These domestic incidents we learn from the introduction to the 6th Book of the *Institutes*, in which Quintilian has left an affecting eulogy of these

members of his family, the last of whom had recently died. He is supposed to have died about 118 A. D.

Such are the few facts that are known about the life of Quintilian, nearly all of which are gathered from the Introductions to the 1st, 4th, and 6th Books of the *Institutes*, and from occasional allusions to his career in the body of the work.

His accounts of Roman elementary education, with his own ideas on some important questions in regard to it, will be found in the 1st Book of the *Institutes* and the first few chapters of the 2d Book. Of the remainder of the work, which is devoted to the training of the orator, the first chapter of Book 10th is important as a suggestion of a course of reading, and of the manner in which authors should be read; the second chapter of Book 11th, for its discussion of memory and of the means by which it may best be improved; and the first two chapters of Book 12th, for the depiction of the character of the ideal orator, which is in most respects equally good as what would doubtless have been his characterization of a good and well-instructed man. Since what has already been said of methods of instruction, of subjects of elementary study, and of the comprehension of studies, has been derived largely from the *Institutes*, we may here limit ourselves to a survey of Quintilian's opinions on several important educational topics.

He has a high opinion of the average capacity of boys. "You will find," he says, "the greater number of persons both ready in apprehending and quick in learning, since such quickness is natural to man.—Dull and unteachable persons are no more produced in the usual course of nature than are those marked

by monstrosity. Among boys, good promise is shown in the far greater number; and if this promise disappears in the progress of time, it is manifest that not native ability but care was wanting."

This high opinion of average human nature is doubtless far more just than many educators are willing to grant, who are ready to attribute to the parsimony of nature meagre results which are largely due to their own lack of skill and intelligent care.

A natural correlative to this opinion is a high estimate of the efficacy of early education and early impressions. Like other ancient writers, Quintilian strongly emphasizes the abiding effects of early influences, and the strength of early habits, especially those of an objectionable character, which, like the flavors given to new vessels and the colors with which white wool is dyed, adhere, he says, with singular tenacity. Hence all the child's associations need to be guarded with especial care.

He recommends also that in early years boys should learn many useful things by way of play, that maturer years may be spared for more serious tasks.

This fruitful suggestion of Quintilian waited long before being embodied by Froebel in the kindergarten. Though, like Froebel, he would include the elements of reading in this early instruction, he would have it retain carefully the character of an amusement, that the child may conceive no distaste for learning, and he



FREDERICK FROEBEL, 1782-1853

would have it attended with praises for small success and the delights of small victories.

Like Locke, he lays great basis on the choice of a teacher, on his character, and on the importance of his work. In Book 2d of the *Institutes*, he sketches his ideal of a teacher,—a man pure and elevated in morals, endowed with perfect self-control, attracting the affection of his pupils by his benevolence of character, tempering authority with mildness and courtesy, dignified yet easily accessible, judicious in bestowing praise and in the criticism of efforts, an ardent admirer of all that is good and noble, fond of the work of instruction, and able and eminent in his calling.

“For my part,” he says, “I do not consider him who is unwilling to teach little things in the number of preceptors; but I argue that the ablest teachers can teach little things best if they will;” and in another place, he says, “Would Philip king of Macedon have wished the first principles of learning to be communicated to his son Alexander by Aristotle, the greatest philosopher of that age, and would Aristotle have undertaken that office, if they had not both thought that the first rudiments of instruction are best treated by the most accomplished teacher, and have an influence on the whole course?”

Furthermore he impresses on teachers thus fitted for their vocation the necessity of studying the special tastes, abilities, and dispositions of their pupils, that they may guide themselves by such knowledge, and never “overburden their weakness”. He would also have them observe due alternations of vigorous application and refreshing play; and make use of such

incentives as praise and the desire of honor and distinction, rather than blows, which he considers a punishment fit only for slaves, tending to harden boys or to make them abject, and wholly needless if their tasks, adapted to their abilities, be regularly exacted.

With regard to the importance of developing a high type of moral character, Quintilian is no whit inferior in emphasis to Seneca; and, since he is intent on the proper education of the orator, in the 12th Book of the *Institutes* he makes it the foremost requisite that he should be a good man, morally upright and just; and he adopts Cato's definition of the orator as "a good man skilled in speaking". Such a character, he insists, "though it receives certain impulses from nature, requires nevertheless to be brought to maturity by instruction," since it is needful that youth should learn what virtues are and be early habituated to practise them.

So far as I know, Quintilian is the first among the ancients who has left recorded a definite defence of public education against private tutorship. He answers at the outset the objections to schools, on the score of danger to morals, and of the supposed greater effectiveness of instruction given exclusively to one or a very few pupils. As to the first, he thinks the danger of corruption in his time was greater at home than at school, and that the gravest risks to which boys were exposed were from the tendencies early imbibed from the vile example of parents. To the second objection, he answers that the entire attention of a teacher cannot profitably be given one pupil, since the boy's

work in memorizing, meditating, and writing is hindered by any interference; and that much of the work of instruction is such that "whatever be the number of the audience, each will still carry away the whole."

In favor of public education he urges that boys should early be accustomed to publicity:

(1) that they may not be abashed at the presence of numbers, since their duties as men will require them to be brought into frequent contact with their fellow men;

(2) that they may acquire *common sense*, which can be gained only from society;

(3) that by measuring their powers against those of their companions, they may, on the one hand escape ennui, and on the other avoid "becoming swollen with empty conceit";

(4) because of the enduring "friendships which, formed at school, remain in full force even to old age, as if cemented with a certain religious obligation";

(5) because boys at school learn much by imitation of their schoolmates, and are spurred to exert themselves by emulation, whilst receiving valuable lessons, not merely from what is taught to others, but by what is commended or corrected or reproved in them; and

(6) because of the economy of time of an accomplished teacher, who can reach many by the same effort that he would use for one, and even more effectually, from the inspiration of numbers to the teacher, and the contagion of sympathy among the pupils.

It is doubtful whether the argument for public education has been stated more completely and concisely since the days of Quintilian.

It is interesting also to observe that Quintilian felt himself moved to discuss with some warmth a question which is of present importance in our own country,—the question of the proper division of duties between schools of a lower and a higher grade, and the fixing of the stage of advancement at which youth should pass from the one to the other. In his day, the contention was between the schools of the grammarians and those of the rhetoricians; and in the first chapter of Book 2d of the *Institutes*, he takes part in this on behalf of the teachers of rhetoric with much clearness and cogency, proposing a suitable dividing line in a series of school work in which boundaries are more difficult to fix than between the duties of high-school and college.

His suggestions for the first steps in composition are so judicious that the teacher of to-day would find it profitable to study the 9th chapter of Book 1st and the 4th of Book 2d of the *Institutes*. In these first exercises, which pass from relation of fables to paraphrases of poets, thence to anecdotes and character sketches, and so to historic narrations, the matter is given and attention is fixed on varied and effective forms of expression. In all this he says: "Let that age be daring, invent much, and delight in what it invents, though it be not often sufficiently severe and correct. The remedy for exuberance is easy; barrenness is incurable by any labor." His suggestions also as to the teacher's treatment of such themes, tolerating much, altering some things with clear reasons for the alterations, and praising others, but with the statement that there is something better to which the

boy should hope in future to attain, are highly judicious and instructive.

Since in the time of Quintilian memory was more carefully trained than is usual in these days of many books, his suggestions as to how it may be improved, though they contain nothing especially novel, will not be without interest, coming as they do from one who, according to his own account, usually wrote out and then memorized his speeches verbatim.

At that time as now, certain mnemonic arts, or quasi mechanical contrivances for aiding memory, were warmly recommended. Quintilian gives a clear account of some of these; but, while conceding that they may have some efficacy, since they are approved even by Cicero, he does not recommend them, because they burden memory with another thing to retain. The great art of memory, in his opinion, consists in frequent repetition, and meditation with fixed attention. Second only to this is analysis, and arrangement in the order of thought. To these may be added as convenient helps vocal associations by repeating aloud; local associations, as with the place on the written page; and some minor similarities and ideas of origin. To those of weak verbal memory he recommends to memorize only their subject-matter and its order of arrangement, trusting to these to suggest fit expression. This last recommendation accords with Cato's maxim already quoted (page 199)—“Get a firm hold of your matter and words will come fast enough.”

Finally the remarks of Quintilian on the choice of reading matter, on the manner of reading, and on the respective merits of various kinds of reading, accom-

panied by judicious criticisms and characterizations of the great authors of Greece and Rome, are of great pedagogic interest. This is the chapter* which the historian Gibbon says he had often perused with pleasure; and a portion of it is not without resemblance to attempts made recently to select the best hundred words in the English language, though the list of Quintilian bears more the character of a catalogue raisonné. It is a pity that a chapter, otherwise so excellent, should be marred by a fulsome eulogy of the tyrant Domitian.

In the choice of books to be read, his suggestion that those only should be considered that have stood the test of time, would be thoroughly timely in this age of the multiplying of books, too many of which are worthless and hence are soon eliminated by the searching ordeal of the sound average sense of mankind. The rule which he gives for selection is stated in concrete terms adopted from Livy, that the orator should first read Demosthenes and Cicero, and then those authors which most resemble these. This rule, reduced to a more general expression, would be to read first what is generally allowed to be very best in any department of literature, with full assurances that afterwards what falls far short of this high standard will meet with little toleration,—a severe but doubtless wholesome rule.

His advice as to the manner of reading is in all respects excellent. Thus he advises that we should read much rather than many books; that all reading should

* Institutes, Book X. C. I.

be accompanied with intellectual digestion, "that what we read may be committed to memory and reserved for imitation, not when it is in a crude state, but after being softened and as it were triturerated by frequent repetition;" that we should read always with care and attentive consideration and not finally leave the thing read until we have gone over it afresh to assure the proper relation of the parts to each other; and lastly that our reading should be attended with judgment and critical discernment, since great authors "sometimes make a false step, or sink under their burdens, or do not always equally apply their minds."

His remarks on authors are always apt and pointed, and abound in animated and felicitous expressions; as, for example, when in speaking of Aeschines in contrast with Demosthenes, he says of him, "as being less confined in scope, he has more appearance of magnitude, yet he has only more flesh but less muscle;" but these critical estimates are too remotely related to pedagogy to need any special attention here.

It is not too much to say that Quintilian treated with greater fulness and insight a greater variety of important pedagogic topics than any other ancient author. His work was of persistent influence on the pedagogy of succeeding ages; for it is said that the instruction in the monasteries used many of its suggestions until the 11th century. It was then lost from view for three centuries; and its rediscovery in the 14th century was a subject of rejoicing among the Humanists, whose theories were long influenced by its teaching.

Plutarch—1st and 2d Centuries, A. D.

We come now finally to consider the services and the educational views of a man, who, though born in Greece, where he also closed his honorable career, yet spent a considerable portion of his active life in Rome; and who as a citizen and probably as an official of the empire, belongs equally to Greece and Rome. Plutarch, always most widely known as the author of the parallel lives of illustrious men, was a philosopher as well as a biographer.

Just as in the "Lives" he brings together on equal terms the heroes of Greece and Rome, so in the educational ideas which are ascribed to him, we find opinions derived from the Greeks and especially from Aristotle, modified and colored by the better kind of Roman utilitarianism. Hence he may without violence be considered as a representative of the union of Greek and Roman pedagogy in the closing ages of antiquity. Although the "Lives" can hardly be called a pedagogic work, yet they are not without pedagogic interest, both because of the wide educational influence that they have exerted during many centuries on the characters of men who rose to distinction, and because this effect of theirs was wholly in consonance with the method by which the ancient classic nations strove to train their youth to desirable types of character, by familiarizing them through songs and narrations with the deeds and characters of heroic men.

The pedagogical opinions of Plutarch are to be gathered from his essays, which are entitled "Morals", especially from those on the Art and manner of hearing, on Marriage, and on the Means of knowing

our progress in virtue ; but chiefly from the essay on the Training of children. The authenticity of the last-named essay indeed is doubted by some critics; yet it is generally included in his works, and in any case is of great value in the history of education as being what is probably the latest connected treatise on education that has come down to us from ancient days.

The views of Plutarch on the early care and training of children, on the choice of a teacher, and on the nature of early discipline, coincide so closely with those of Quintilian, not to mention other ancient authors, that they need not be stated here. Some of his felicities of expression and illustration, in regard to these topics, have been used by such later writers as Erasmus and Montaigne, to adorn their thoughts, and will be met with in the discussion of those authors.

Plutarch makes the aim of education to be, so to habituate children to right and desirable things by a careful training, that when mature they shall be pleased only with the beautiful and



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good, and shocked by the ugly and the evil. The character of man, he believes, is and remains a result of long continued habituation. Those only are to be considered complete men in whom are combined philosophy and public efficiency, or in other words, high spiritual culture and practical activity.

This characterization of the complete man would

aptly describe Plutarch himself; for besides being a philosopher and man of wide erudition, who for many years lectured on philosophy in Rome, he is believed by some to have been honored with the consulship in Rome, and is known to have held important offices in his native country.

In education, he says, three things must conspire,—nature; reason, in which he includes instruction;—and use or exercise; and just “as in husbandry there is needed the concurrence of good soil, a good husbandman, and good seed, so in education, good natural talents need a good teacher and good doctrines and admonitions.” Moreover, as in husbandry an unkindly soil may be greatly improved by thorough tillage, so he believes that a niggardly nature may be measurably atoned for by good instruction and diligent industry. Believing thus in the effectiveness of good training, he encourages teachers to much perseverance in their efforts, even in the case of youth who are apparently of little promise.

As regards the subject-matter of education, since Plutarch recognizes speech and reason as the two chief indications of man’s distinctively-endowed nature, he urges that the greatest attention should be given to their due development. Hence the youth should be carefully trained to avoid all unconsidered speech, all loose and trifling conversation, and all mere extemporaneous declamation, and to aim at an elevated but not inflated style of speaking.

To cultivate and inform the reason, all merely popular trifles should be avoided, that the youth may devote himself to sound and wholesome learning, in

which the commoner sorts should, as it were, be merely tasted in passing, and *philosophy* be made the absorbing study: For, "as it is well to travel and visit many cities, but to dwell in the best, so youth, while studying many useful things, should lay chiefest stress on philosophy."

Philosophy, with Plutarch, means the science of our relations to our fellow beings, to the state, to our own inner and better selves, and to the Supreme God, and thus comprehends a wide course of elevating study. It is interesting to observe how analogous the philosophic ideas of this enlightened heathen, like those of his immediate predecessor Seneca, are to the teachings of Christ, which were then obscurely permeating all parts of the Roman empire.

Aside from the study of philosophy, and as a preparation for that public activity which he considers an essential part of the complete man, Plutarch would have youth receive sufficient gymnastic exercise to assure health and beauty, and a proper training for war by martial exercises and by hunting; would have the writings of the best authors furnished to them "as needful tools" which they are to be taught to use aright; in the essay on Music, he expresses the familiar Greek idea of the great and pervasive importance of music in education.

Like Quintilian he gives young men wise advice on their manner of hearing and reading. In both they should be sober and circumspect, heedful as well to reject any evil suggestions that may occur in what they hear and read, as to let slip nothing good and useful. They should remember, he says, in reading

some things, "that poetry like painting is an imitative art, a vocal painting as the other is a voiceless poem; and hence, while they may admire the artistic presentation of vile characters, they should by no means take them as models, carefully separating their admiration of the art of the poet or narrator from their moral estimate of the character presented." Plato, more judiciously, would have such things eliminated from what is presented to impressible youth; Plutarch, however, probably had in mind youth of more mature years, whom he would teach how to hear and read all things without harm.

In the treatment of boys who are approaching maturity, lest the heat of passions should lead them into vices and excesses, Plutarch advises that they should be carefully managed rather than rigidly restrained; that they should be quietly guarded from corrupting companions, and especially from toadies; that they should be familiarized with the career of great and self-controlled men; and, most of all, that their parents should be to them patterns of what they would wish their children to become. Finally, fathers are exhorted to let the remembrance of their own youth temper their management of their children, that it may make them a little blind to many things of minor consequences, and may guard them from holding too close a rein on their well-grown sons.

This is a pedagogic idea both wise and weighty; and, if it was much observed in ancient times in the management of youth, I have never chanced to find it expressed in any ancient author save Plutarch. Indeed, not a few well-meaning parents and teachers in our

enlightened age find it difficult gradually to substitute the kindly influence of experienced equals in place of the rigid discipline of early years, and thus to make easier to youth approaching maturity the transition to that career of independent self-direction to which they must soon be remitted.

With Plutarch, ends the list of authors in the Roman empire who expressed any noteworthy views upon education. In the centuries which succeeded his death, that progressive decline in morals and manners to which all contemporary authors bear witness could not fail to affect the attention paid to the education of youth. Not only did men cease to treat educational questions or even to think of them; but the encouragements to the pursuit of a learned career gradually ceased to be sufficient to overcome the natural heedlessness of youth. Their attendance at the civil higher schools, so splendidly encouraged by many of the emperors, gradually declined; and this decline was doubtless hastened by the unwillingness of the rapidly multiplying Christians to send their children to pagan schools.

The teachers vainly strove to attract students by the desperate expedient of making knowledge superficial by epitomes and abbreviated treatises. The decay of the schools became markedly apparent during the 4th and 5th centuries, and in the 6th they ceased to exist, having long before ceased to have any elevation of aim or freedom of thought. Their disappearance marks the close of the ancient order of things, and of the education inspired by its ideas. A new type of

education, based on an idea hitherto unconceived, was having its small and unnoticed beginnings, and was destined after ages of darkness and confusion, to open a new and brighter chapter in the history of both education and civilization.

CHAPTER XVIII

VALUABLE CONTRIBUTIONS OF ANTIQUITY TO PEDAGOGY

Having now completed our survey of the educational history of those ancient nations which, whether from their prominence in the general history of the world, or from the importance of their services to learning, or from their present relations to mankind, seemed needful to our purpose to be known; and omitting any mention of some whose history, while interesting, seemed in no wise indispensable to our view, let us, in accordance with what was said in the introductory chapter, briefly survey the entire course of ancient times, and see what contributions of permanent value it has made to pedagogy.

I. First of all, antiquity has exhibited to us the workings and results of all save one of the conceivable forms and types of ideal aims that nations can strive to attain by the education of their young.

— In China, we have seen the passive family type of national education, inspired by the idea of worship of ancestors and reverence for antiquity, by which, like flies in amber, the nation has been preserved unchanged and unprogressive for untold centuries, owing its preservation as much to its unwavering adherence to one fixed idea, as to its isolation, and to the great rewards which a paternal government holds out to high attainments in the kind of learning which its ideal

dictates; whilst the example of China may possibly suggest to nations in the future a mode of promoting learning as effectually as by schools supported by the state.

The caste system of India with its underlying pantheistic idea, and the monastic tendency of unalloyed Buddhism, both leading to quietism and to the extinction of all manly endeavor, are of interest because of the unnumbered millions influenced by them.

Of all the types of active national education, looking to some form of what Rosenkranz has called *conquest*, the lowest doubtless was the Phœnician endeavor to conquer space in the restless enterprises of a tricky and conscienceless commerce; whilst the most respectable by far was the Egyptian effort, inspired by the belief in immortality and in a righteous retribution after death, to pass as victors the limits of this mortal life by an upright career leading to embalment after death. The former, by the vices which it generated, led to the total destruction of the race, whose memory has been preserved chiefly by the great yet unintended services that it rendered in the diffusion of useful knowledge which it had anywhere gathered, or mayhap enlarged; the latter, though disfigured in the popular apprehension by many gross superstitions, raised a great nation, though a career of more than thirty centuries, to a high state of civilization, and left it finally to slow decay only when it had ceased to be a vital influence in the national life.

The national education which looked only to external conquest, like that of Persia and Sparta, though inspired in the former by an elevated religious idea, long

ago taught Aristotle the lesson which is valid for all ages, of the folly of those nations which, in training for war, lose sight of the ability to enjoy peace and leisure with dignity

The Athenian ideal of the office of education, to form a perfect body tenanted by a soul completely developed for the duties of citizenship, was a noble one, and produced fruits which, though evanescent for national independence, were brilliant and enduring in literature and art. It needed for its perfection something which could be supplied only by the Christian and modern conception of the independent worth and immortal destiny of the human personality.

The Roman materialistic conception of education in its merely utilitarian aspects has left us in its results a lesson of which every age experiences the need, of the greatest heights to which such an education can hope to attain, and of the base depth to which it is likely ultimately to tend.

The Hebrew theocratic ideal of God as the supreme ruler of men, and of men as all equals in His sight, long perpetuated in that tenacious race by a corresponding education which was reinforced by striking symbols and recurring national festivals, has been largely merged in the more complete Humanitarian idea of Christianity, for which it was a preparative.

The experimental test which the ancient world has furnished us of the various possible conceptions that can prompt and direct education, is of peculiar value to modern times. It should stimulate us to strive more intelligently for the realization of our higher ideal of the worth and perfectibility of a humanity

which must make a complete and righteous use of this present life that it may thereby be fitted better for citizenship in the unseen world.

II. The ancient world has bequeathed to modern pedagogy, in a more or less complete form, many of the branches of learning which it uses as means of education. Not to speak of the important device of a phonic alphabet with all that it implies, it has demonstrated in Athens the efficacy in education of familiarity with a vernacular literature, a lesson that modern people have been slow to learn; has developed a science of grammar; has pushed to a good degree of completeness rhetoric, formal logic, and geometry; has developed the elementary operations with numbers, but save in the case of the Hindoos without devising any convenient system of notation; has emphasized the importance of music, and done something for its theory; has given us the beginning of geography and astronomy; and has left works of acknowledged value in medicine and jurisprudence. Besides this, two of its peoples have left to us a very rich and valuable literature, which, during a large part of the last five centuries has been well-nigh the sole means for training the young, which is still very widely used for this purpose, and which seems destined long to be so used by enlightened nations, though possibly in somewhat smaller measure.

III. Furthermore, several ancient nations have transmitted to us valuable suggestions and exemplifications of methods of presenting subjects to immature minds. Both China and Egypt early invented the abacus to facilitate operations in numbers. Plato commends the

Egyptian use of objective methods in certain subjects, and Quintilian strongly favors and illustrates the use of such methods in teaching reading and writing. The name and fame of Socrates are associated with an inductive and developing method of singular excellence. Aristotle's method of observing and interpreting nature preceded by many centuries Bacon's exposition and enforcement of the inductive process. Quintilian's mode of presenting rhetoric in its practical aspects has never been excelled. And the teachings of Jesus, though linked with our deepest and most sacred associations, as those of the Savior of the world, might profitably be made a pedagogic study, as unequalled models for the illustration of the most profound truths by the most familiar facts.

IV. Though Greece, beginning with the sophists and the philosophers, may claim to have given to the world the germinal idea of high training, and to have wrought it out in a university of long-continued celebrity, yet we owe to Rome, as one might expect, the only good ancient example of a consistent school system, advancing by successive stages from the elements to specialties. We have seen that this system was an outgrowth of popular needs rather than an organization devised of set purpose by the ruling powers; and that it received its first governmental notice only when it had already taken somewhat definite form as a series of schools consisting of lower and higher elementary schools, schools of rhetoric, and schools of philosophy, of law, and possibly also of medicine. Hence its resemblance to good modern systems is sufficiently interesting. We shall have occasion to see in our future

studies that this resemblance is not a result of later imitation, since the modern evolution of school-systems has been a growth from above downward. Hence we have here an example of the same universal needs of civilized societies, expressing themselves eventually in like modes of school organization, even in ages widely separated from each other.

V. In this connection must be emphasized a remark that has before been made, that Athens has left us an example hitherto unequalled of what may be accomplished in the physical and æsthetic training of an entire nation. One modern nation has already accomplished much in general systematic physical culture, while others, whether wisely or not, have generally remitted it to the voluntary efforts of youth; but of the success of general æsthetic culture little can be said. Of the Athenian superiority in æsthetic culture, some portion was undoubtedly due to the special endowment of the people, but much more to the possibility of a far more exclusive preoccupation with matters of taste than is permitted by the exigencies of our more complicated modern forms of life. Yet in any case, the value of the Athenian example is great, as showing what may be attained in æsthetic culture under favorable circumstances and by the use of proper appliances; and the influence of this example is likely to increase rather than to grow less, as advancing civilization brings with it the opportunity and the need of widening the circle of refinement.

VI. Finally, let us take stock of the educational ideas expressed by the ancient world which, whether from their intrinsic worth though only individually

emphasized, or from a general consensus amongst theorists, are important to be elevated here into distinct view as valuable ancient contributions to pedagogic theory.

1. Plato and Aristotle, probably influenced by Spartan example, agree that, contrary to Athenian practice, education should be made an affair of the state, established and encouraged by the State, as essential to the well-being and perpetuity of the State; and Plato also proposed that it should be made compulsory between the ages of ten and sixteen. In our days, when nations are but recently assuming these duties, it is well to remember that these ancient philosophers distinctly affirmed the right and duty of the State to educate, and that one of them was the first to affirm distinctly that the education of the young should not be left dependent on the ignorance or neglect of parents, nor on the unreasoning caprice of youth.

2. The idea that there is a progressive order of development to which all human beings conform in their advance from infancy to maturity, is distinctly affirmed by Aristotle, the order that he gives being first the body and the feeling, and next the intelligence; and he declares that the body and the feelings need the earliest training and habituation, the body for the sake of the soul as a whole, and the feelings for the sake of the intelligence. How important this study of the order of development of capabilities is becoming in the modern science of education, how ingenious are the attempts that are made to correlate it with the order of race development, and with what admirable minuteness of research it is coming to be prosecuted

in the study of the early years of childhood, every well-instructed educator knows.

3. The ancient authors generally concur in emphasizing the importance in early training of songs and narrations of heroic actions, and of familiarizing youth with the best stores of their country's literature. This idea not merely was wise for ancient times, when the subjects for study were few, but is coming to be recognized as equally wise to-day when many subjects are clamoring for recognition in our schools; and in the most influential quarters, we hear it declared that our vernacular literatures should be the last thing to be neglected in the education of the young, even if a diminished share of attention to ancient literature be thereby made imperative.

4. There is a consensus ~~of opinion~~ among the ancients as regards the permanency of the impressions early made upon the minds of children, and the consequent importance of controlling such impressions. Hence they concur in urging extreme care in the choice of nurses, attendants, and companions, that the language as well as the morals of the young may grow into right forms, that no evil suggestions may contaminate their souls, and no evil actions become familiar to their experience.

Hence also the emphasis that is laid, especially by Plato, on careful selection of the examples with which the charms of poetry enchant the young in heroic songs and poetic narrations. The vital importance of the impressions made on the plastic minds of the young has long since become an educational commonplace; but are we sure that greater care is exercised

to-day in controlling such impressions than in the times of Plato and Quintilian? If not, one of the most valuable lessons that antiquity has emphasized has not yet been sufficiently heeded.

5. The dignity and importance of the teacher's office was pretty generally conceded among the ancient nations. The Chinese and the Jews emphatically affirmed it. The Hindoos and the Egyptians tacitly assumed it by committing its duties the one to their highest caste, the other to the sacred order of the priesthood. Amongst the Greeks, though the lower teachers were lightly esteemed, the higher and more learned were held in honor; Plato deemed the direction of education the highest of the chief offices of the state, and thought with Socrates that its services were too precious to be repaid by money; and the wisest philosophers undertook the instruction of young men.

In Rome, not less than in Greece, many of the inferior teachers were held in a contempt, which they seem to have deserved by their character and the meanness of their learning, as we may judge by the account that Plutarch gives of them; but the really able and worthy teachers were respected, were often richly paid, and received special honors and privileges from the state. No one has surpassed Quintilian in his high estimate of the qualifications of the teacher and of the nobility of his work, while Seneca draws an attractive picture of the relations that should exist between teachers and taught. It appears therefore that among the ancient culture peoples a just estimate of teachers and teaching prevailed, and that where seeming exceptions occur, the reason for them may be found

in the character and attainments of teachers themselves.

6. It is interesting to observe that in China and Egypt, as well as in Athens and Rome, it was tacitly and perhaps unconsciously assumed that the higher education needed chief encouragement, and deserved to be fostered even where general education had no direct recognition. Thus in China and Egypt the high places in the state were open only to the learned; in Greece, the greatest philosophers devoted their talents and their fortunes to founding and perpetuating the higher learning; and in Rome, the most enlightened emperors erected buildings, granted salaries, and conferred special privileges, to encourage liberal culture. Nor does it seem that through this exclusive encouragement to higher learning, elementary instruction deteriorated, but rather that it was improved. Thus by the example of the ancient world, the assumption seems to be warranted that higher education deserves more fostering care from public sources than is usually accorded to it, and that elementary education must look for its improvement to an impulse proceeding from higher seats of learning.

7. The unanimity of opinion among the ancient theorists on the subject of school discipline, is something remarkable. In ages during which the rudest punishments were prevalent in the schools as well as in the state, theorists concur in denouncing corporal inflictions as slavish in character, debasing in tendency, and usually futile for purposes of reformation. Indeed, an English writer aptly says that the unanimity of writers in condemning flogging has been paralleled

only by the persistency of the schoolmasters in continuing to use it. The practice of teachers, however, in this respect is undergoing a slow amelioration, and the signs are not few that the milder discipline which the early theorists so generally advocated will ultimately prevail in schools. Let us also recall the judicious suggestion which Plutarch makes, that parents and teachers should gradually relax the discipline exercised over well-grown youth, that they may be prepared for the self-direction of maturity.

8. Finally, the idea which in our days is more commonly urged as a theory than generally observed in the practice of the schools, that all tasks set for the young should be carefully adapted to their powers of apprehension at the stage of advancement which they have reached, was not unknown in ancient times. Thus Seneca advises that the burdens laid on youths should be fitted to their powers, and that no greater ones should ever be imposed than they can easily bear; Quintilian says that skilful teachers will not overtask the weakness of their pupils, but will adapt their tasks to their abilities; and Plutarch, in order that youth may taste the pleasures of success, recommends that their powers be not put to too severe tests.

These then are what seem to me the most significant contributions made by the ancient world to the theory and practice of education. They are obviously neither few nor of inferior worth.

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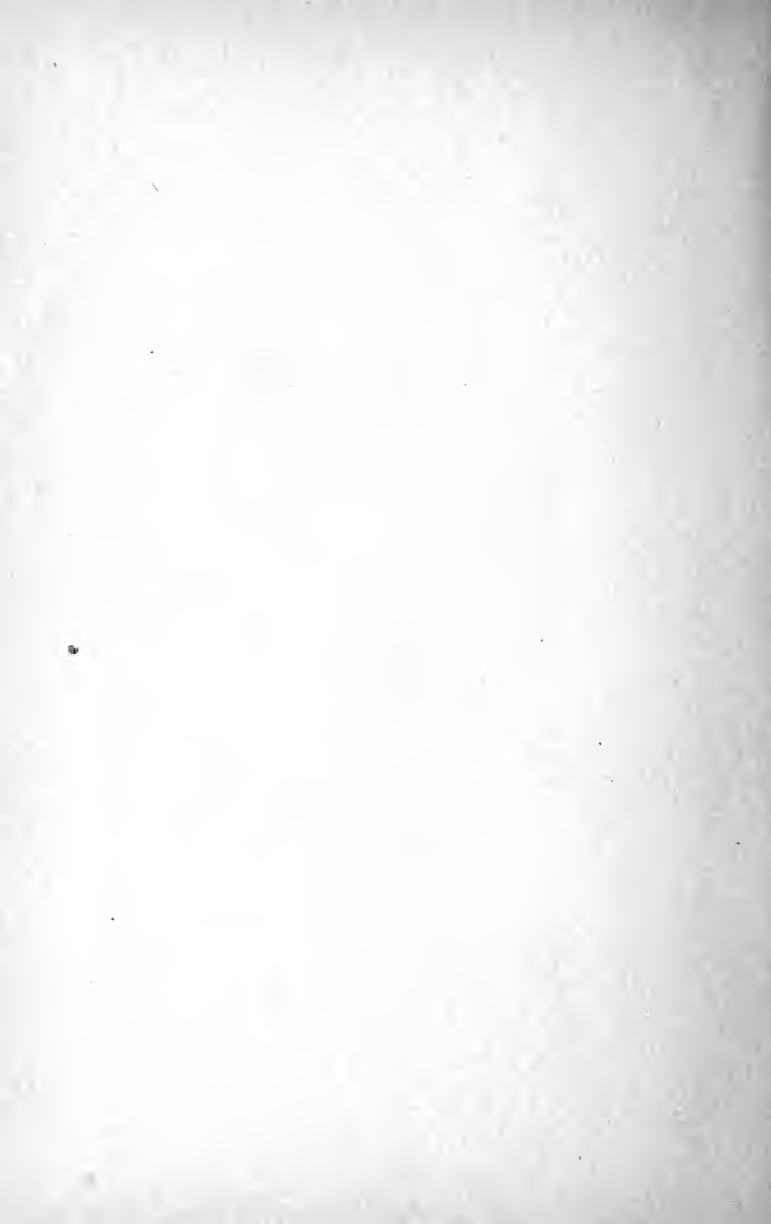
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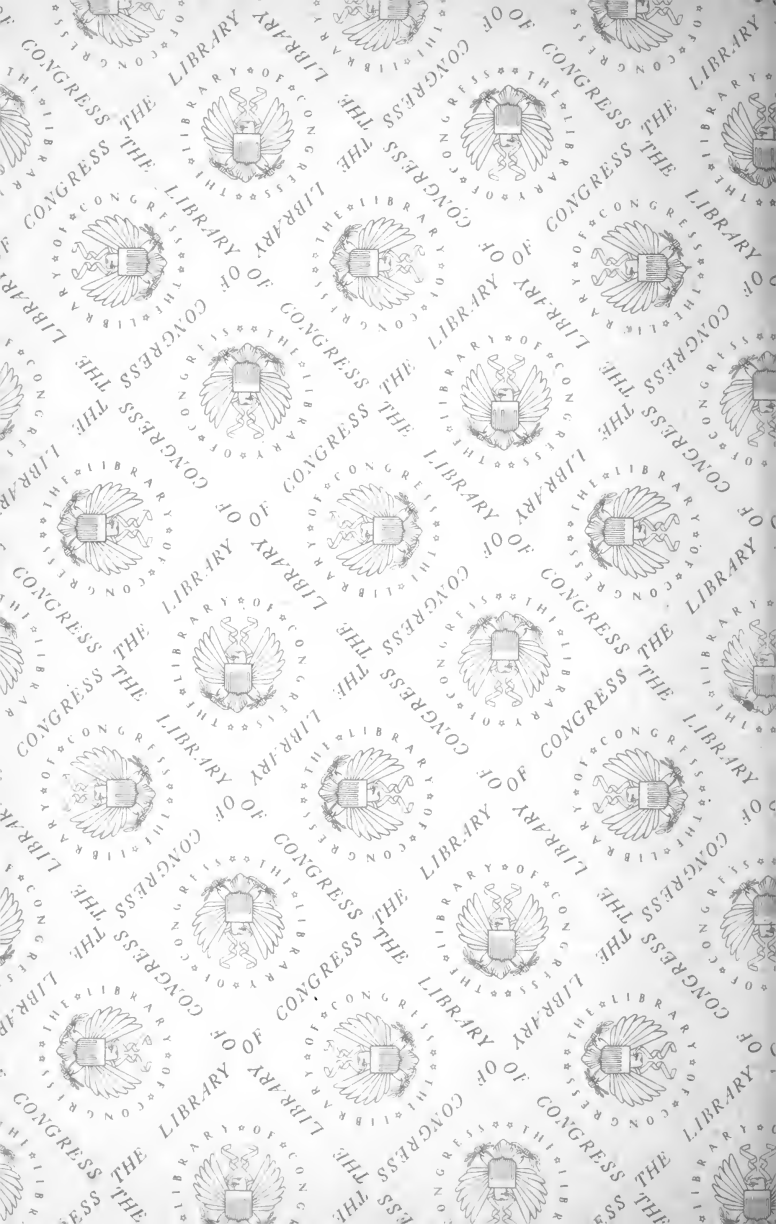
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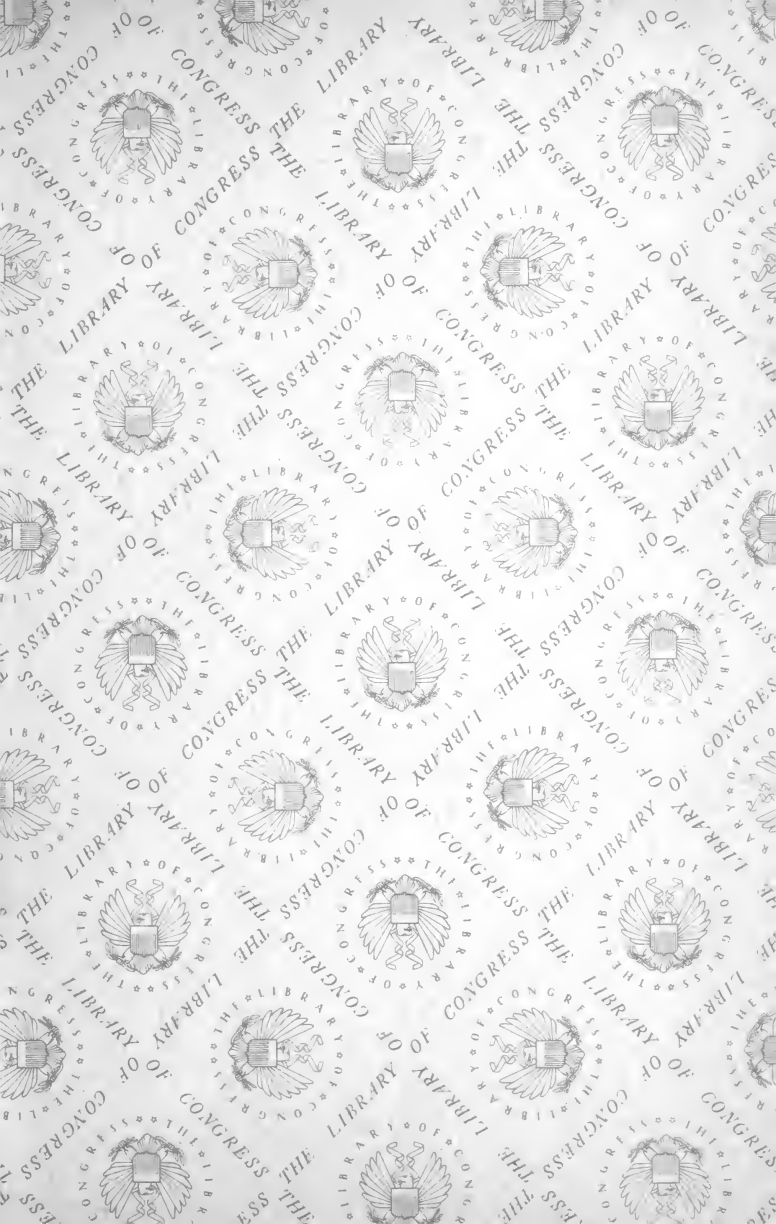












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